THE CULTIVATOR.

NEW "TO IMPROVE THE SOIL AND MIND." SERIES.

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MAKING AND PRESERVING BUTTER.

EVERY farmer may have noticed that the price obtained for whatever he has to sell, always depends more or less on the quality; but in nothing, perhaps, is this so particularly conspicuous as in the article of butter. Double or treble the price is readily obtained for some butter, that poor or ordinary butter will bring. In the New-York and Boston markets, the price of butter ranges from eight to twenty-five cents per pound. We could name dairies, the butter from which has brought from twenty to twenty-five cents per pound, for years in succession. Now this difference is caused by *quality*, and how important it is that this principle should be duly regarded.

The first important requisite in the manufacture of good butter, is, that the milk be kept in a proper temperature, and this, experience has proved to be from 50 to 60 degrees. To secure this temperature, the milk-room must be protected as much as possible against the violent heat of the sun, and it should at the same time admit of a free circulation of air, as this facilitates the separation of the cream from the milk. A cool upper room, an airy cellar, or a "spring-house," may be made use of, according to the location. If running water of sufficient coldness can be had, it would be preferred, in warm weather, to set the pans of milk in troughs of stone or wood, through which the water should contantly flow. The writer is aware that a prejudice is entertained by some against "spring-houses," but the unfavorable opinion in regard to them was probably derived from those which were badly constructed, or not properly ventilated. A committee of a Vermont agricultural society, in an elaborate report on butter-making, drawn up a few years since, recommended that the pans of milk be set in troughs of cold running water, till the animal heat had passed off, and after it had cooled, to place the pans in water heated to the temperature of 170 degrees, taking care that the milk should not boil or simmer—the pans to be afterwards set back on or over the troughs—*not in the water*. It was stated that this process had been found to so hasten the rising of the cream that it would all rise, and could be taken off in half the time ordinarily required, and that it also improved the quality of the butter by preventing the sourness of the milk and cream. The time occupied in heating the milk of twenty cows, is said to be twenty-five to thirty minutes. We cannot from experience, speak of this mode of managing milk and cream, but having some practical acquaintance with butter-making, we should not doubt its success.

We believe it to be well established, that to produce the very best butter, and especially that which will keep longest, the cream should be perfectly sweet when churned. Some experiments, very carefully conducted, some years since, by Dr. TRAILL, of Edinburgh, and published in the Transactions of the Highland Agricultural Society, clearly lead to this conclusion,* and we believe it is supported by the observation of the best butter-makers in this country.

The practice of churning the *milk and cream together* is followed in some sections. Its advantages are, that in warm weather, or when the milk is kept in a high temperature, more butter is obtained than if the cream only was churned. We are not aware that any other advantages are claimed for this mode; and those who have tried both, churning the milk and cream together, and the cream alone, state that if the cream rises well, it affords as much butter as is obtained from the milk and cream. It is true that in regard to the experiments of Dr. TRAILL, before referred to, he concludes that churning the milk and cream together after they have become slightly acid, seems to be on the whole the most economical process; but the reason he gives for it is, that "*it yields a large quantity of excellent butter-milk*," which is largely used as an article of diet in Scotland, and is of considerable consequence as a source of profit, being constantly sold in the markets. Where the milk and cream are churned together, it is usual in this country, to allow the milk to stand till it is curdled, but not till whey rises to the top. The best butter-makers are very particular in regard to this, and are always careful to have the milk churned at the particular stage mentioned.

Working Butter.—The object in working butter is to free it from the butter-milk, and the *caseine* or cheesey particles, which, from their tendency to putrefaction, prevent the butter from keeping sweet. To effect the separation to the best advantage, it is important that the butter should have, when it first "comes" in the churn, a considerable degree of solidity, and that the particles should have a tendency to cohere. This will generally be the case, provided the milk and cream has been kept in a temperature sufficiently cool, and is not too much heated in churning. And it may be well to observe here, that the cream or milk should not be raised in churning higher than 75 degrees, and that it will be necessary to bring it to about 55 degrees, before churning will be attended with much advantage. The use of the thermometer in making butter, as well as in making cheese, is now regarded as almost indispensable.

Some butter-makers, whose butter is noted for its excellence, pursue this course in working it: as soon as the butter is taken from the churn, it is beaten together

* "Butter from sweet cream has the finest flavor, and appears to keep longest without acquiring rancidity."—Conclusions of Prof. TRAILL, in reference to his experiments in butter-making. *Transactions Highland Society*, for 1843, p. 23.

by a ladle or spatula, and afterwards worked in a brake, similar to what is described in the last volume of the Cultivator, pp. 187, 240. The salt is then added, and it is set in a cool place for a day or two, when it is worked over once more, but care is taken that it is not worked *too much*, as it renders it oily and injures its flavor.

Washing butter, when first taken from the churn, is a practice the propriety of which has been considerably controverted; but perhaps the true reason or it is not always understood. When the weather is warm, or the milk and cream has been exposed to too high a temperature, the butter is apt to "come soft," and in this state it is very difficult to work it properly. The use of cold water, in such cases, is to harden the butter and facilitate the expulsion of the butter-milk. It is of the greatest importance that butter be properly worked, for on the perfection of this part of the process, or the entire separation of the oleaginous from the serous and cheesey particles, its keeping quality greatly depends. There seems, therefore, to be no objection to the use of water, when butter is in the condition above mentioned; but it would, on the contrary, appear to be decidedly useful in such cases.

But the question presents itself—Suppose butter could be properly worked and the butter-milk thoroughly expelled without the use of water, would washing be expedient?

Practical results, so far as the knowledge of the writer extends, furnish a negative to this question. If the milk and cream has been kept in a proper state, and is not too much heated in churning, the butter will generally "come hard," and may be readily worked in a thorough manner without water. Trials have been made by dividing parcels of butter, produced under such circumstances as are here mentioned, washing one portion and working the other without washing, and the *unwashed* portion has been found to keep sweet the longest; and the fact is deemed to be well established, that butter which "comes" sufficiently solid, is injured by being washed in water. In the best dairies of Europe, the practice is not approved. In the chapter on "Butter," in the "British Husbandry," it is remarked in reference to washing, that it "is a practice not to be commended, and in many dairies has been relinquished." In the "Farmers' Series," in the account of a "Gloucestershire Vale Farm," which is said to be conducted with superior management, we are told—"it is found by *long experience* that butter retains its sweetness much longer when no water is used in making up."

Upon the whole, we would restrict the washing of butter to those cases where the butter-milk could not be expelled without it, and would prefer that course of management which would obviate the necessity of using water for this purpose.

Dr. PHILIP PHYSICK, of Germantown, Pa., who for several years in succession received the first premium of the Philadelphia Agricultural Society, pursues the following mode in working butter. When the butter is taken from the churn, it is laid on a clean linen cloth spread out as flat as possible, and not more than two inches thick. A bag of pulverized ice, about half a peck in quantity is provided, and on this is placed the cloth which has the butter on it, where it remains till the butter is quite hard; it is worked on a marble slab, with a wooden spoon or ladle, having a linen cloth next the butter to take up the butter-milk.

Salting.—The best rock salt, made perfectly fine, ought always to be used, if it is wished to keep the butter long. A great deal of butter is spoiled by using impure salt. The loss to the farmers of this state from this cause, is annually very great, and it is felt to a serious degree in all the western country. It is the opinion of experienced dealers in butter, that the price of a large portion of that which comes from the west and is sold in the eastern cities, is injured to the amount of six to eight cents per pound by the use of bad salt.

Less than an ounce of the best Turk's Island or St. Ubes salt, is sufficient for a pound of butter. In some good dairies, fourteen ounces of salt are used for sixteen pounds of butter. Sugar and saltpetre have been tried, but experience has shown that they are of no special benefit. The salt should be intimately incorporated with the butter when it is first taken from the churn, and the butter should then be set in the dairy-room for twenty-four hours, when on working it over again, it will be found firm and solid. If intended for long keeping, the butter should be packed in well glazed stone jars, or well seasoned white-oak firkins. Smaller parcels are generally preferred than it was formerly common to put up. From twenty-five to fifty pounds is the quantity usually wished in a jar or firkin. It is recommended to keep a strong brine on the butter, to the depth of an inch.

The preservation of butter depends more on the total expulsion of all extraneous ingredients, and on its perfect exclusion from the air, than on the quantity of salt with which it may be mixed. It is prepared in England and sent to India, with but very little salt, and sometimes without any. For this purpose it is purified by melting before it is salted and packed. Loudon thus describes the process: "Let the butter be put into a proper vessel, and this be immersed in another containing water. Let the water be heated till the butter be thoroughly melted; let it continue in this state for some time, when the impure parts will subside, leaving at the top a perfectly pure transparent oil. This, when it cools, will become opaque, and assume a color nearly resembling that of the original butter, being somewhat paler, and of a firmer consistence. When this refined butter is become a little stiff, the pure part must be separated from the dregs, and be salted and packed up in the same manner as other butter: it will continue sweet much longer in hot climates, as it retains the salt much better than in its original state. It may also be preserved sweet without salt by adding to it a certain portion of fine honey, perhaps an ounce to a pound of butter, and mixing them together thoroughly, so that they may be perfectly incorporated."

FARMERS' BAROMETER—HUMBUG.—Some of the papers have given or copied directions for constructing a very simple and cheap barometer, by balancing a sealed bottle on one end of a rod, by a metal weight on the other. The air confined in the bottle always remaining the same, it is evident that when the atmosphere is light, the bottle will sink, and when it is heavy, the bottle will rise. This is interesting in theory, but to show that the inventor never successfully reduced his theory to practice, a simple calculation only is necessary. Suppose the bottle contains a hundred cubic inches, the enclosed air would weigh thirty grains. The column of mercury in the common barometer being about thirty inches, in falling *one inch* it would in effect add only *one grain* to the weight of the air in the bottle. But a depression of the mercury only the tenth of an inch often affords an important indication in the weather. The question now arises, would the tenth of a grain move a balance readily and conspicuously which supports a three-pint bottle? The answer is most obviously in the negative. Hence the impracticability of this proposed barometer. With a smaller bottle the difficulty is only increased. T.

WASTE OF MANURE IN CITIES.—The London sewers pour daily into the Thames, 115,000 tons of mixed drainage. One part in 30 is regarded as rich, fertilizing, solid manure, or 3,800 tons daily. This amount would richly manure every year more than 50,000 acres of land.

AGRICULTURE AND RURAL ECONOMY OF EUROPE.

RURAL NOTICES ABROAD—By Caius.—No. IV.

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Italian Agriculture Continued.—As one goes north from Rome, through the Papal territory, he finds gradual improvement in cultivation. The huge old houses which he at first passes in crossing the Campagna, have a ruinous and deserted aspect. The stables are open; the cattle-yard neglected, and all its fertilizing materials lost. Immense deposits of manure in the neighborhood of the great inns upon the route, are rotting in the sun; the fence that was once built about the garden is broken down; cattle and pigs are in the road, or house, or stable, as pleases them best; and perhaps a sickly looking patch of grain is waving upon a knoll near by, with two or three ragged and begging boys to guard it. As the Campagna rises into hills toward the north, the fields have more care; olive orchards are set upon the slopes, and patches of clover and lucerne appear. The vine, too, now shows itself, and at first growing stragglingly from the trees, it is trimmed farther on with neatness. The villages that are situated in the valleys of the mountain range, are abundantly supplied from the hill-sides around them; and the occasional plains, of a higher level than the Campagna, such as that about the old town of Terni, in the neighborhood of the famous falls of that name, are both rich and well cultivated. This valley of Terni, watered by the Velino, produces three full crops of grass in a year. The mulberry is grown extensively, and there are considerable silk manufactories in the town; it may be, indeed, that the reader is wearing this moment a black cravat, woven in that old Papal town, from cocoons spun within sound of the roar of the waterfall,—by worms fed on leaves that have glistened with the spray that there mounts the skies—

> ——" and thence again
> Returns in an unceasing shower, which round,
> With its unemptied cloud of gentle rain,
> Is an eternal April to the ground,
> Making it all one emerald."—*Childe Harold. Des. of Terni.*

Passing farther north, the sides of the mountains are wooded with Chestnut, not unlike our tree of the name, and the Ilex, or live oak, which never approaches in Italy the size of the same tree in our Southern forests. The deciduous oak also shows itself here and there, and near the city of Spoleto is a famous grove of immense sized trees, one of which is said to be not less than fifty feet in circumference. The fields, where uncultivated, are tufted with a beautiful blooming heath, with white blossom, and white downy stalk. The flowers generally of the Appenines, are varied and beautiful; among others, is one not unlike our fragrant oreus.

The valley of Clitumnus, to which I have before referred, is distinguished for its beauty and fertility. Its river, the *Clitumno*, bursts forth in a body from the base of a limestone mountain, and is clear and cold. I drank from one of its many bubbling fountains, on a hot day of April, (17th,) stretched upon the green turf. The beauty of the water is proverbial;—

> "the most living chrystal that was e'er
> The haunt of river nymph,—
> thou dost rear
> Thy grassy banks whereon the *milk white steer*
> Grazes."——

And they are there yet—all through the valley, under the spreading elm trees, and standing beside the tall poplars, those most beautiful cattle of Europe. The herbage is no where richer, or more luxuriant; it was celebrated in the Georgics,* and by Horace. The maize is seen in this valley growing abundantly, and the vine is thrifty, though the wine made from it is by no means famous. Around Perugia, which sits like a queen upon its hill, the plains are even better cultivated than in the lower valley of Clitumnus. The vines are more closely trimmed, and the ends are curiously braided together. The plows are far better than southward, and the white oxen work well under the yoke. The carts are as good almost as Scotch carts, and all fertilizing materials are carefully preserved. Rye I saw flourishing and fully headed in early April; and the peculiar clover of the region in blossom. Its leaf is similar to that of our species, but the flower is a deep crimson, spiral shaped, and sometimes two inches in length. And these bright crimson tassels, when waving over a broad field, offer one of the richest sights that can meet the agricultural eye in Italy. The working people seemed to me better dressed in the neighborhood of Perugia, than in the other Papal regions, and in the immediate vicinity of the city, are sweet little valleys, so richly cultivated, and so set off with quiet looking homes, that one might half believe himself looking upon an English landscape.

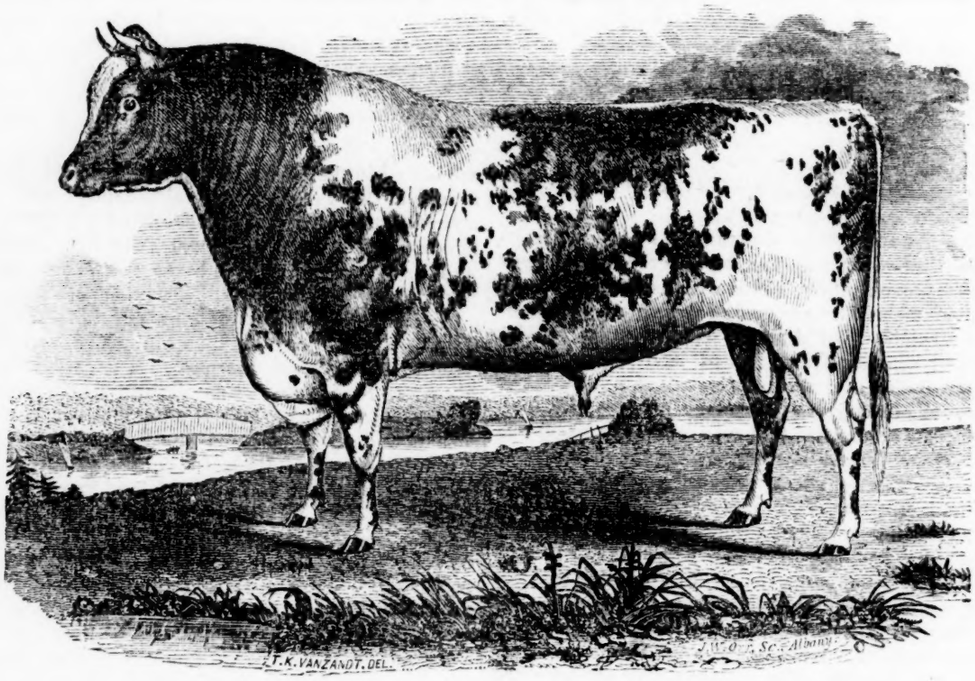
"Reedy Thrasimene" is a beautiful lake, lying near the borders of the Papal and Tuscan dominions. Its banks are flat and sedgy, and a proposition is now on foot to drain its upper shores for cultivation. Judging from what now appears of the fertility around, the cost would be richly repaid. The olive produces large crops upon the slopes of the hills, and its trimming is nice and peculiar. Every portion of decayed wood is most carefully cut away, and one frequently sees a mere shell of a trunk, from which all decayed substance has been removed by scraping, putting out thrifty boughs, laden with the largest and finest fruit. For those unacquainted with the tree, I may say its general size is between the peach and the apple tree, though less graceful in appearance than either. Its leaves are oval, of the color of the sage leaf, and with the same velvety surface.

Amid olive orchards, and upon the borders of Thrasimene, the road winds, and crosses the brook Sanguinetto, famous from Hannibal's battle, and enters the dominions of the Grand Duke of Tuscany. The Duke is a better farmer than was the old Pope: the roads, too, are better as one rides into Tuscany. The peasantry are better dressed, and with their neat Tuscan hats, have a cheerful and picturesque air. The vines are neatly dressed and trimmed, and hang in braids or festoons from the trees. Wheat and rye is waving beneath, and rich fields of clover, full grown, are nodding crimson heads, and their leaves are glittering with rain drops.

But such cultivation belongs only to the richer valleys; winding up long hills, on which grow clumps of ilex and chestnut, and over heaths untilled, the fertility vanishes. And perhaps the great inn where you stop for the night, has only about it a poor cabbage garden.

I stopped at such an inn, at dark, in an April night, and the reader, if he chooses, may look into the kitchen of an Italian inn. It is long and low, and the roof is heavily timbered, and blackened with smoke. Hams are dangling here and there from the beams. About the sides, are the various implements of cooking, and a cupboard of their rude dishes. The heavy old fireplace, has a little blaze glimmering in front. In the middle

* Hinc albi, *Clitumne*, gregres, &c.



Mr. Vail's Imported Short-Horn Bull "Duke of Wellington."

of the room, upon the stone floor, is a long oaken table, and at one end is the master of the house, in long shirt collars and broad-brimmed hat, chanting the passion of Gesu Christo. Two men sit near him intent upon the sounds, and two others below, are listlessly hanging over the board, and the vetturini, in their blue shirts, form a group at the end. The women are hurrying through their arrangements for the night with earnest looks, and as the solitary candle flickers over the faces of the host and his listeners, and the red glow of the fire fades and brightens on the blackened beams above, and the dark stone floor below,—you have a picture for brigand dreams. And a likely enough place it was for such brigand phantasy, for the inn stood alone, with scarce a house in sight, and the mountains rolled up gray around it.

COLMAN'S EUROPEAN AGRICULTURE--PART 8.

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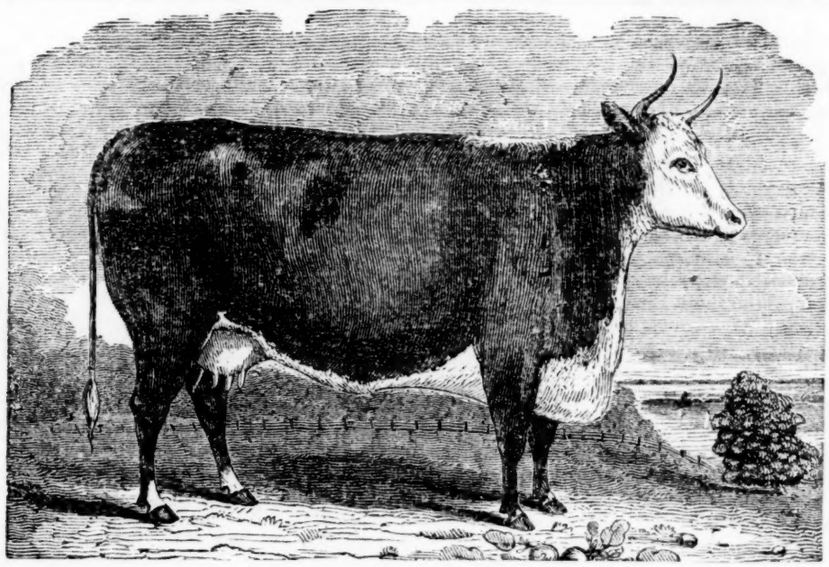
FROM what had been stated in a former portion of this work, we were led to expect that this part would be devoted almost entirely to the subject of Live Stock; and considering the great interest with which this branch of English husbandry is generally regarded in this country, and the fact that it is, as Mr. COLMAN declares, "one of the most important topics connected with British agricultural improvement," we confess to some disappointment in finding it disposed of in the brief space of forty-three pages. But some of the motives which influenced him in this summary disposition of the subject, may perhaps be inferred from the following remark: "Among the conflicting opinions and estimates which prevail, both in this country and the United States, in respect to different breeds, my judgment may be viewed with jealousy and suspicion, and I may have to encounter fierce prejudices of breeders and speculators." He informs us, however, that his "opinion will be given without any pecuniary bias whatever," and that he has endeavored to give the "result of his various inquiries and observations, in as impartial and simple a form as possible," a course to which we have not the least doubt he has faithfully adhered.

He observes that the mind of the traveller is strongly impressed with the distinct character of the breeds of animals which occupy different localities in Britain, and the perfection of form which several of them have attained. He says—"The science, or perhaps it may be called the *art* of breeding, has been greatly studied;" but he thinks that notwithstanding the success which some men have attained in it, "a great deal remains to be understood and explained." As evidence of this, he adverts to the practice of "in-and-in" breeding, the propriety of which he thinks is still a mooted question. He admits, however, with most persons who have devoted much attention to this subject, that the great point in breeding is the selection of animals possessing the qualities which it is wished to perpetuate. "The great law that like produces like, though it may not be invariable, is comparatively of universal operation. Good qualities are propagated by the union of animals possessing good qualities; and defects, and faults, and infirmities, are in like manner extended and aggravated. The application of this principle or physical law, has in this country been most marked in its results. * * * The old proverb certainly holds true, that 'a good cow may have a bad calf;' but then it is much more likely that she will have a good one, than that a bad cow will have a good calf. The confidence with which some persons speak of what can be done, and what they can do, is often excessive; but what has been accomplished by selection, by crossing, and by the conjunction of peculiar properties, is surprising. There seems to be a limit beyond which no person can go. The particular breed may be altered and improved; but an entirely new breed cannot be produced; and in every departure from the original, there is a constant tendency to revert back to it."

HORSES.—Mr. COLMAN observes that in England, horses are trained for and exclusively confined to particular departments. "So we find the race-horse, the hunter, the carriage horse, the draught horse, the roadster, the saddle horse, the pony for children and ladies, the general hack, and the farm-horse. This comes of the immense wealth of the people, and is adapted to give them the best advantages of each kind."

The treatment of horses in England is spoken of as being generally of the kindest nature. He gives some



Hereford Cow "Matchless."

interesting examples of this. "At the house of an eminent nobleman," he observes, "whose hospitality I enjoyed, it was the invariable custom of the family—ladies and guests, as well as the master—about 9 o'clock in the evening, to go by a covered passage, into the stables where thirty horses were kept, to see that the grooms and others were at their posts, that the horses were well cared for, and the stable in good order. * * * At one of the principal breweries in London, where forty of the largest size dray-horses were kept, the manager informed me that after six years of hard service, the horses receive their freedom, are sent into the country, exempted from all labor, and kindly cared for during the remainder of their lives. I confess, in observing these kind provisions, and this extraordinary care, I have not been able to suppress the wish, that many of the bipeds who share with these animals the labors of the field,—not unfrequently performing the hardest part of it—would experience in their own persons, an equal care, and find in their cottages on their return from a hard day's work, even a moiety of the comforts with which the stables of their co-laborers are provided. It would be doing great injustice to say that this is not often done by many persons who have no greater pleasure than in providing for the comfort and welfare of their dependants. It is only to be regretted that the practice is not universal."

"There are three breeds of horses in the kingdom, distinguished for their valuable properties as farm-horses;—these are the Cleveland Bay, a horse of great strength, and good size and figure; the Suffolk Punch, a large and serviceable horse; and especially the Clydesdale horse, almost exclusively preferred among the excellent farmers of Scotland, particularly in the Lothians. I have seen nothing superior, in my humble judgment, to the last horse, for farm labor, compactness, strength, and action. * * * The horses belonging to the Queen's Guards, which are often to be seen in the streets of London, and always on state occasions, are beautiful animals, and subjects of universal admiration. They are of a black color, and bred, I believe, on the continent, purposely for the army."

We are informed that in farm labor, horses are only worked about eight hours per day. As to feed, the general daily allowance is stated to be "a peck of grain, half oats, and half beans, and from fourteen to sixteen pounds of hay." In plowing, an acre a day, is considered, on an average, a day's work for a pair of horses; but the furrows are narrow, from eight to ten inches in width, and the distance travelled by the horses in such cases, is from twelve to sixteen miles a day Oxen are not much used for labor in England, and the few which Mr. COLMAN saw seemed not to be well managed, being in this respect decidedly behind the best New England teams of this description.

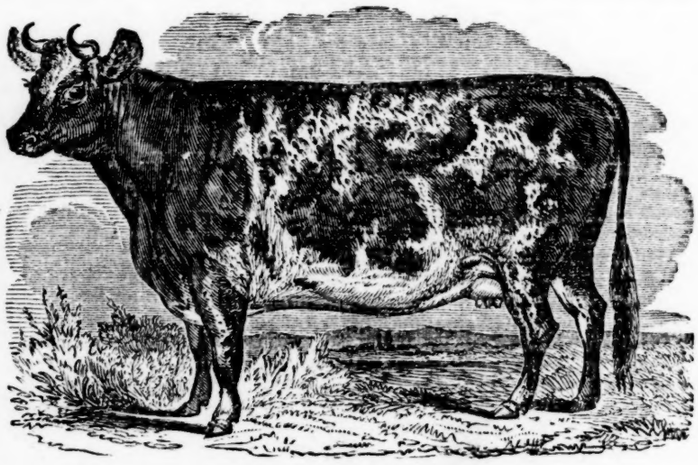
NEAT CATTLE.—Mr. COLMAN informs us that the principal breeds of cattle which have fallen under his notice, are the Improved Short-Horn, the Hereford, the North and South Devon, the Staffordshire Long-Horns, the Ayrshire, the polled Aberdeenshire, and Galloway, the Kyloe, or West Highland, and the Kerry. The different breeds, it is said, have their exclusive partisans.

Of the *Improved Short Horns*, it is observed that they "are the most popular breed in Great Britain. In perfection, they are of large weight, fine boned, come to maturity early, exhibit great proof upon being killed, and though they are admitted to be great consumers, and require very high feeding, they are considered a very profitable stock for the farmer. They are commonly brought to market before three years old, and often at eighteen months. The best of these animals have a strong natural tendency to keep fat, but they are not suited to a short pasture or a scanty manger. The high-bred animals are not remarkable for their milking properties. There are exceptions; but most of these animals are inferior in the quantity and quality of their milk." He admits, however, that "individuals of rare excellence may be *selected* from among them."

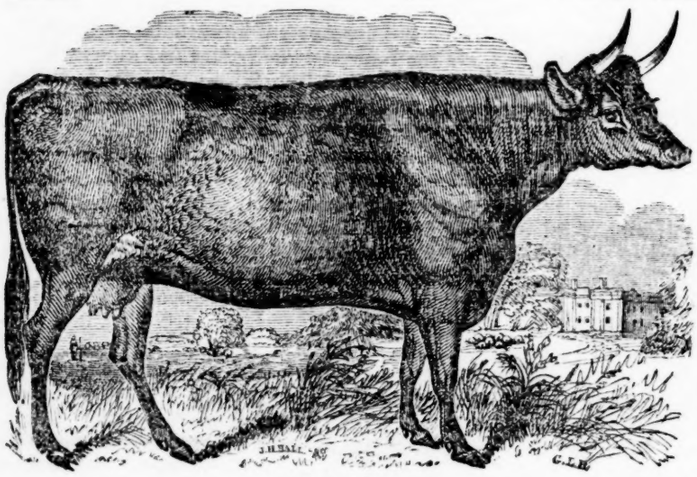
The *Herefords* are spoken of as the rivals of the Short-Horns. "It would be difficult," he observes, "to adjust the rival claims between these two great breeds. The Hereford cattle are exceedingly neat in their limbs and form, and of good size. At the show of the Smithfield Club, held at Christmas, the highest prizes appear to alternate between the Short-Horns and Herefords. Under proper treatment, they may be brought to as early maturity as the Short-Horns. They are not so great consumers as the Short-Horns, and their thrift is remarkable. Some farmers in England prefer them as fattening beasts to the Short-Horns. My observation inclines me to the belief that, in equal numbers, there are as many good Herefords as Short-Horns; and the thriftiness of many of them is quite remarkable. In respect to handling, observing persons know that, in this matter, there is every diversity among animals of the same breed; and that it is rather the characteristic of individuals than of a tribe, but I may hazard the general remark, that, as a breed, few animals handle better than the Herefords." He states that in general, the Herefords rank low as dairy stock,

though they are in some instances considered good milkers.

The *North Devons*, Mr. C. speaks of as "exhibiting the perfection of form and symmetry, with soft silky coats, and with hair in curled and waving lines, in appearance like the most beautiful varied mahogany that ever came from under the plane of the cabinet-maker. The South Devons are animals of a much larger frame, often coarse-boned, attaining sometimes to a considerable size, not remarkable for thrift, coming late to maturity, and in truth, identical with the great mass of cattle to be found in New-England." [We trust those persons who claim that the "native" or common New-England cattle are of Devonshire origin, will particularly observe Mr. COLMAN'S remark, that it is *South Devons*, not the beautiful North Devons, that the "native" cattle most resemble.—EDS.] "The North Devons are, as a breed, most highly and deservedly esteemed." Mr. C. states they are generally preferred for labor, being active, strong, and hardy. It is generally believed that they do not come to maturity as early as the Improved Short-Horns and Herefords. Their meat is very highly esteemed in the Smithfield market.



Ayrshire Cow.



Devon Cow.

The *Ayrshires* are pronounced a beautiful breed, fully as distinct, in Mr. Colman's opinion, as the Short-Horns. They are valued chiefly for the dairy, but the cows, when dry, fatten very easily, and when fatted, the four quarters weigh from 480 to 720 lbs.

The *West Highlanders, or Kyloes*, are a small breed, bred in the remote Highlands of Scotland, and on the northern islands of Britain. "They are short, hardy, thick set, always in good condition, and exceedingly thrifty, when brought from the short feed of the north, into the rich pastures and to the abundant mangers of the south. Their size is small, but their weight is very great in proportion, as they are extremely compact and solid. Their meat is esteemed of the best quality in the market, and commands, usually, half a penny per pound more than any other. They are sent to market at three years old." Mr. C. remarks that the shape of these cattle is so perfect, that the body would form, by taking off the head, neck, and legs, almost an exact parallelogram. He adds, also, that they are "universal favorites," and that no advantage has come from crossing these cattle with any other breed.

The Galloway and Aberdeenshire polled cattle, are spoken of as "highly profitable for thrift." The *Angus* breed, allied to the Galloways, are highly spoken of. He states that he saw a herd of cows of this breed at the show of the Highland Society, at Dundee, which exhibited the strongest indications of being the most abundant milkers, and in this respect, have, in his view, seldom been surpassed.

Of the *Alderney or Guernsey* cattle, which are bred on the Channel islands, Mr. C. says they are "in general, exceedingly ugly, small, thin, coarse-boned, and presenting little more than the skeletons of animals, covered with a yellowish, flabby, and coarse hide." But great, and very successful efforts have been made of late years to improve this breed, and as a specimen of what has been accomplished in this way, Mr. C. mentions an Alderney cow which was shown at the Royal Agricultural Society's meeting, at Southampton. This, he thinks, was the handsomest cow he ever saw—that is, she "gave the best promise of being what a cow should be. * * * She was rising two years old, of moderate size, compact, and well-shaped, of that yellowish dun color, which generally characterizes the breed, with a large and golden udder, ears of an orange color inside, a thin and clean neck, and the bright eye of a gazelle." This breed is valued chiefly for the extraordinary richness of the milk which the cows yield, and on this account are kept by noblemen and gentlemen for supplying milk, cream, and butter for their own tables, and Mr. C. says he has never had the slightest difficulty in recognizing their produce. A few of this breed of cows are sometimes kept in a large herd of cows of other breeds, in order that the milk of the Alderneys may give color to the butter and richness to the cheese.

Under the head of *milking stock*, Mr. COLMAN states that Yorkshire Short-Horns are generally kept at the London milk-establishments. Sometimes a cross of the Durham is used. The average quantity of milk for the year, at those establishments, is stated at eight quarts per day, for a cow. Their food is about eight pounds of hay, ten pounds of potatoes, and twenty pounds of mangel-wurtzel to each cow per day. Sometimes a bushel and a half of brewer's grains, forty pounds of mangel-wurtzel, and ten to twelve pounds of clover hay constitute the daily allowance to each cow.

"The Ayrshire stock," it is said, "are generally deemed the best milking or dairy stock in the kingdom. This" says Mr. COLMAN, "is a strong statement; my own observations, which were, however, of necessity,

very limited, would make me hesitate in speaking so emphatically. Their general reputation is strongly in their favor." He states that he visited a dairy farmer in Ayrshire, who kept thirty-five very beautiful cows of this breed. "His best cows, in the best of the season, gave fifty-four pounds of milk per day. If, as is usually reckoned, a pint is a pound, this would be twenty-seven quarts per day. The average yield was forty pounds per day, or twenty quarts."

But the most productive cow for butter which Mr. COLMAN met in England, was a North Devon. She averaged for several weeks in succession, twenty-one pounds of butter per week. And the North Devon cows of Mr. BLOOMFIELD, a tenant of Lord LEICESTER, are stated to have averaged upwards of two hundred pounds of butter each, per year, for several years. This is the herd from which Mr. PATTERSON, of Baltimore, and the Massachusetts Ag. Society obtained their Devon stock.

The *Kerry* cows, of Ireland, are said to be greatly valued for their milking properties. Mr. COLMAN found, at a milk establishment near Cork, three of these cows which yielded an average of twenty-eight quarts each, per day, and it was stated to him on "respectable authority," that a clergyman in the county of Kerry, sent to Liverpool in one year, twenty-five firkins of butter, of sixty-four pounds each, the produce of five Kerry cows—equal to three hundred and twenty pounds per cow.

Some observations on "*Improvements in relation to the United States,*" are deserving special notice. "That the stock of the United States is of a very mixed and miscellaneous character, every one must admit. Comparatively few attempts have been made in a systematic manner and upon an extended scale, for its improvement. Where they have been made, they have frequently failed for want of perseverance, very often for want of encouragement,—and have been sometimes met with the sneers of ignorance, or the derision of envy. The immense improvements which have been made here, strike the observer with grateful astonishment. Few subjects, in my opinion, more concern the interest of American husbandmen than the improvement of our live stock. Much, undoubtedly, may be done by the selection of the best from our own breeds, and by breeding only from the best; but our stock is so crossed and mixed up, and amalgamated, that it would be a difficult process to unravel the web, and go back to any original breed. We may certainly, with great advantage, avail ourselves of the breeds existing here in the highest state of improvement.

"In making a selection of breeds, it is plain that regard should be had to the locality where they are to be placed. The Improved Short-Horns, the Yorkshire, and the Hereford, are the best adapted to the rich and deep pastures of the Middle and Western States; the Ayrshire and the North Devon, seem to me especially suited to New England; while the West Highland cattle would evidently be fitted to the cold and least productive parts of the country."

"With us, as well as here, the success of farming must mainly depend on such a conduct of the farm as shall not exhaust its productive powers; or rather, that it shall, from its own resources, furnish the means, not only of recruiting its strength, but of actually increasing its capabilities of production. There is no more obvious way of doing this, than by consuming the produce of the farm, mainly, in feeding animals, through whom the riches of its vegetation may be returned in a form to furnish other and better crops."

We have not room in the present number for a notice of Mr. COLMAN's remarks on sheep and swine.

WEEDS INJURIOUS TO AGRICULTURE.

BURDOCK.

Lappa major, of Gaertner.
Arctium lappa, of Linneus.

DESCRIPTION.—Involucre globose, each of its subulate scales with an incurved hook at the extremity, leaves very large, petiolate. It belongs to the natural order Compositæ, and in the artificial system is placed in the class Syngenesia. Lappa is derived from *llap*, a hand, in Celtic, because it lays hold of everything near it.

GEOGRAPHY, HISTORY, &C.—It is a native of Europe, of the East Indies, and of Japan, growing in waste grounds, by road sides, and on ditch banks. According to Loudon, "few quadrupeds except the ass, will eat the plant, but birds feed on the seeds, and snails and caterpillars on the leaves. The stems, stripped of their leaves before the flowers appear, may be eaten either boiled or raw, with oil and vinegar. Withering says, a decoction of the roots is esteemed by some equal to that of sarsaparilla. Burnt green, between the time of flowering and seeding, three pounds of the ashes produced sixteen ounces of very white alkaline salt, as good as the best potash." In the United States, it is found throughout the northern states, as far south as Maryland and Virginia, extending west to Kentucky and Illinois, growing in cultivated fields and waste grounds, especially around old buildings and fence sides. The leaves, when in a young state, are eaten with apparently a good relish by either cattle or sheep; hence, there is little danger of the plant becoming ripe in pastures. We have seen the green leaves given as a food to horses, at intervals of eight or ten days, the leaves being considered useful for purifying the blood, and preserving the general tone of health. This plant is a great pest among wool-growers, on account of the liability of the burs to become attached to the wool.

The best method of exterminating it is to grub up the roots soon after the leaves appear, or any time during the months of April and May, but the earlier it is done the easier it will be effected, because the ground is then softest. Many farmers intend to destroy it by cutting off the stems just before flowering in July or August, but then the business is liable to be neglected during the hurry of haying and harvest, or if done, the roots put forth new shoots, which bear flowers and burs. The roots are biennial. There are three other species of this genus described in Decandolle's Prodomus, all of which are natives of Europe or western Asia.

COCKLEBUR, CLOTWEED, OR BURWEED.

Xanthium strumarium, of Linneus.

DESCRIPTION.—Leaves cordate at the base, 3 to 5 lobed, largely dentate or incised. Fruit oblong, eliptical, terete, rather acute, covered with strait, sharp, rigid, hooked prickles; stem smooth, much branched, 3 to 4 feet high.

This plant belongs to the same natural order and artificial class as the preceding. The root is annual.

GEOGRAPHY, HISTORY, &C.—It grows throughout nearly the whole of Europe, and is also found in Siberia and Northern Africa, abounding by road sides and in cultivated fields. It is also frequent throughout both the northern and southern portions of the United States, having been apparently introduced from Europe; how-

ever, Nuttall says it is indigenous to the remotest portions of Upper Louisiana, but when we reflect upon the facility with which the seeds are often transported by adhering to the coats of animals, there is no difficulty in accounting for its wide dissemination, assuming what we have just advanced, that it has apparently been introduced from Europe. Certainly in western New-York, it has every appearance of being an introduced weed. In this country, it grows in cultivated fields; by the sides of water courses, and among rubbish collected around the outbuildings of the farm. It is a vile useless weed, and its burs are highly injurious to the fleeces of sheep.

It being an annual, it is easily exterminated, and hence is of little trouble to the farmer who takes pains to prevent its going to seed.

THORNY CLOT WEED

Xanthium spinosum, of Linneus.

DESCRIPTION.—Spines three parted, leaves three lobed, above minutely puberulent near the nerves, the under side clothed with a cinerous tomentum. Stem two to four feet high, pubescent, armed with sharp ternate spines; spines yellow. This ugly weed is also a native of Europe, being principally found in the south of France, Italy, the shores of Austria and Hungary, growing in fields and near roads. It has been introduced into the United States, where it is naturalized in places near the sea coast from Massachusetts to Georgia We have seen it growing aoundantly in waste places near Richmond in Virginia. Happily it has not yet found its way into the interior of the state of New-York, but wherever it is found, it behooves farmers to try and arrest its further progress, and if possible, exterminate it, since it appears to be a greater nuisance in a farm-yard than the preceding species. It is an annual, fortunately for the good of the farming community in those sections where it abounds. Hence it must be comparatively easy to be destroyed

CANADA THISTLE.

Cirsium arvense of Scopoli.

DESCRIPTION—Leaves sessile, sinuate, pinnatifed, spinous, stem two to four feet high, paniculately branched with numerous flowers at the summit, involucre ovate, scales oppressed mucronated. Rhizoma extensively creeping; perennial.

GEOGRAPHY, HISTORY, &c.—This is one of the most troublesome weeds that infest the fields of the agriculturist, being a native of Europe, where it is frequent in vineyards and fields, especially in a clayey or a sandy loamy soil. It will not thrive in a very dry sandy or a gravelly soil, or where it is wet and peaty. It has been introduced into America from Europe, and grows more or less abundantly in various sections of the northern and middle states, and it abounds in Canada, Newfoundland, and on the banks of the Saskashawen. It is supposed it was introduced into the United States from Canada, and hence the common name. An instance is given in the Farmer's Magazine where the descending roots of this plant were dug out of a quarry 19 feet in length. The experiment of Mr. Curtis has been often related; he planted about two inches of the root in his garden, in April, and in the November following, it had thrown out stolons on every side, some of them eight feet long, and some of these stolons had thrown up stems five feet from the original root. The whole, when dug up and washed, weighed 4 pounds. Next spring between fifty and sixty young plants made their appearance near where the original piece was planted, which must have sprung from fragments that had escaped the search of the gardener the preceding fall, who is said to have been particularly careful in extracting them. Hence it may well be imagined how difficult it is to destroy the plant in cultivated fields, and how liable it is to spread by plowing, from the roots being carried by the plow, especially when the ground is rather wet. When in a growing state, it is rarely eaten by either horses, cattle, or sheep, excepting the flowers, which are sometimes nipped off by sheep. But when cut with other grass for hay, before or about the time of flowering, it is eaten by both cattle, sheep, or horses, during the winter. When it is cut before the plant arrives at maturity, the prickles become nearly harmless, after being wilted. It is said that before the introduction of turneps and naked fallows, in some parts of Scotland, this thistle, cut green and wilted, formed the evening meal of housed cattle during five or six weeks of every summer. The seeds are so easily transported by every wind as to cause its spread, when it has been once introduced, to be rapid and extensive.

To destroy it, summer fallowing and frequent plowing has been recommended; say let the ground be plowed from four to six times, during the summer. Such a course is very effectual, provided the season be dry. Seeding down land with the large red clover will also keep the thistles in subjection if the clover be kept for mowing; then the thick matted mass of clover smothers the thistles, except a few stunted stalks. It is a law of vegetable physiology that the leaves are necessary to the life of a plant, during the season proper for its growth and reproduction. The leaves are the lungs of the plant. This is the reason that mowing the thistles very low in a dry time, when they are in bloom, often destroys the plant—the soil being very dry, there is not sufficient life and strength in the roots to put forth new leaves, and the roots perish. If the leaves are destroyed a few times as soon as they make their appearance above ground, during the dry weather of summer, there is little doubt but that the entire plant will be destroyed.

S. B. BUCKLEY.

West Dresden, N. Y., March, 1847.

GOOD FARMIMG—ROTATION.

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MORRIS LONGSTRETH, in his late address before the Agricultural Association in Montgomery Co., Pa., gives an interesting example of successful farming, practiced by Jacob Sheimer, of Northampton Co., on the banks of the Lehigh. He adopted the system when a young man, and continued to practice it for thirty-five years, with a constant improvement in the quality of his land.

The farm contained one hundred acres, and was divided as nearly as possible into eight fields, of twelve and a half acres each. The whole was subjected to the following eight years' rotation :—

1. Fallow, manured, limed, and plowed three times;
2. Wheat, with clover;
3. Clover, cut early, second crop plowed in;
4. Wheat, with clover;
5. Clover, pastured, 2d crop plowed in;
6. Wheat;
7. Rye, with clover;
8. Corn, on clover sod.

The object was to introduce the wheat crop as often as the land would bear, which was three times in the eight years. Many will regard this as too exhausting, but it will be observed that each crop is preceded by a good manuring, either of barn manure and lime, or green clover. It is probable that in less efficient hands, or with imperfect manuring, the same successful result would not have attended; but in this case, the excellence of the system was proved by the produce of one season, which reached as high as 1400 bushels of wheat (from three fields;) 600 bushels of corn (from one field;) and 300 bushels of rye (from one field;) or at the rate of 37 bushels of wheat, 48 bushels of corn, and 24 bushels of rye, per acre. T.

OBSERVATIONS ON SHEEP.

MESSRS. EDITORS.—During a short visit in Connecticut, the past month, I had the pleasure of examining the Merino flocks of Messrs. Blakeslee, Nettleton, Merriman, Hickox, and Matoon, of Watertown, and Messrs. Atwood and Smith, of Woodbury, Ct. I found all of these gentlemen in possession of sheep that embody many of the valuable qualities for the production of wool. But those qualities are combined in different proportions, each flock having their own peculiar traits of excellence; all of which show how much the character of a flock can be moulded to the taste of a skilful breeder.

Mr. Blakeslee's sheep are of fair size and shape, with a thick coating of wool of good length upon all parts of the body, and for fineness are perhaps unsurpassed by any pure Merino. It is Mr. Blakeslee's practice to shear his lambs in August, consequently the average weight of the fleeces of his flock is not as high as it would be if his yearlings had a year's growth of wool. Mr. Atwood's sheep are of good quality, and truly remarkable for constitution, form, and weight of the fleece. Mr. Nettleton's sheep are in several respects rather a medium between Messrs. Atwood and Blakeslee's. The owners of the other named flocks being absent, and some of their sheep in open fields, I did not so thoroughly examine them, but they appeared like good sheep, with characteristics similar to those already named. There is also a strong family resemblance among the members of each of those flocks, which is another index of a systematic course of breeding. Yet there is a perceptible difference between what might be termed the best, an average, and the poorest. The fact is, there are seldom any large flocks so good but what we may select individuals that are comparatively poor, and seldom any flocks so poor that they do not contain a few good sheep. To judge of the real character of a flock we want to see the whole flock, or if we see a few individuals only, we want to know their true comparative rank.

I had also the satisfaction of examining the importation of Mr. Taintor, of Hartford, Ct. Here we find size and form of carcass excelling anything I ever witnessed in the Merino race, and for constitution and weight of fleece they are of nearly a corresponding degree of merit. These sheep are another illustration of what may be brought about by a marked course of feeding and breeding. Were those sheep as fine as many other Merinos, they would be the most valuable stock in the country, and could the ewes be crossed with fine wooled rams, it would, in my opinion, add much to the value of the stock, as size is a point that may be attained without impairing other qualities, through the medium of the dam, and the outward coating and quality of the wool through the influence of the sire.

From a personal inspection of some of the most noted flocks, and the combined offspring of the same flocks of equal merit, I am satisfied that the progress of our best flocks is frequently retarded by "in-and-in breeding." I am the more strongly confirmed in this opinion, from the fact, that in the examination of sheep that have been bred in this manner for a series of years, it will generally be observed that the oldest sheep are the most valuable stock. These observations, with my own experience, have caused me to place much confidence in the utility of making frequent crosses with the blood of other families of the same breed, provided that the blood is superior, or equally as good as our own. It not unfrequently happens that the characteristics of two flocks equally valuable, are such that the imperfections of one would be counteracted by the perfections of the other, and by uniting the blood of the two, many of the offspring would surpass the parents on either side.

I find, by conversing with wool-growers in various sections of the country, that many of them are ever jealous of the purity of such flocks as are claimed to be of pure Spanish origin. Those having the finest wool are suspected to be of a Saxon mixture, and those having the heaviest fleeces, are suspected of being crossed with native. It is perhaps too frequently the case that there is some just cause for these insinuations: but the bare fact that some flocks produce very fine wool, and others very heavy fleeces, is no sure evidence that they are grade sheep; for all this can be brought about by management in feeding and breeding, and still preserve the purity of Spanish blood. I believe the pure Merino, in their most valuable state, have both fine and heavy fleeces, and the country now affords many scattering specimens, and occasionally flocks in which these qualities are combined to a high degree. The reason why such are not as numerous as those of a medium and ordinary character, is not because we are not abundantly supplied with the materials for making them so; but it is because the breeders of domestic animals do not sufficiently exercise their own faculties and means, to acquire that knowledge, skill, and energy which are requisite in order to operate with the best success upon those materials. No one can become a successful breeder without having a quick perception of those external marks and qualities which indicate the true worth of an animal, and are an indispensable guide for making judicious selections. Then with a thorough acquaintance with the principles of breeding, selection, and crossing, we can combine, modify, improve, and propagate those qualities, giving the progeny the most perfect and valuable organization; and if the thing is practicable, each succeeding issue will be an improvement upon the preceding.

The prominent objections to many of our flocks, are more the results of injudicious breeding than any natural defect in the original blood. There is no doubt in my mind, but that in the pure Spanish Merino, we have all of the natural elements for producing better sheep and more valuable fleeces than ever have been bred in this or any other country. All that is wanted is a more perfect and uniform development of all of the valuable qualities among the members of one flock; or in other words, a consolidation of those individual traits for which many flocks have already gained a merited reputation. This can only be accomplished by time and perseverance, in crossing and re-crossing the very best animals upon the most correct principles of breeding. I will venture to predict, that if wool-growers would thoroughly study the defects and merits of their sheep, and acquaint themselves with the best practical means of diminishing the one, preserving and improving the other, they might in a few years increase the value of a large proportion of their flocks one-third, without any additional expense in feeding. If any think this impracticable, I would refer them to the difference in the annual returns between ordinary and choice flocks of the same breed. While the cash value of the fleeces of many flocks the past season has averaged no more than seventy-five cents each, that of others has been a dollar and twenty-five cents, a dollar and fifty cents, and a dollar and seventy-five cents. The cash sales from one of my flocks of breeding ewes, one hundred in number,

averaged a dollar and fifty-eight cents per fleece; from thirty-one breeding ewes, a dollar and ninety-six cents; from twenty-five yearling ewes, a dollar and fifty-six cents. The two last-named flocks, were sheep selected previous to shearing. The cash value of the fleeces of a hundred and forty-four yearlings, (May lambs,) was a dollar and forty-two cents each. EBEN'R BRIDGE.

Pomfret, Windsor Co., Vt., March, 1847.

ON THE USE OF CHARCOAL AS A MANURE.

MESSRS. EDITORS.—Permit me through the medium of your valuable paper, to answer the queries of your correspondent, Mr. JOHN MOXON, of Monroe county, relative to charcoal as a manure for wheat; mode of pulverizing, &c., &c. I presume the article Mr. Moxon refers to, is the following, which I find page 197, in the Dec. number, 1843, instead of page 183, in the Cultivator of 1844.

"I, M. W. Powell, Surveyor, hereby certify, that I have measured the ground herein described, beginning at an apple tree, and running a northwest course ninety-five links, thence a southwest course fifty links, thence east thirty links to a line at the north angle, thence east seventy links to the place of beginning; the line from the base to the north angle being twenty-six links, containing two rods, which is a portion of R. L. Pell's wheat lot No. 2.

"We, Patrick Farrell and Leonard Latten, hereby certify that we gathered, threshed, cleaned, and measured the wheat grown on the above described two rods of ground, belonging to Robert L. Pell, Esq., of Pelham, Ulster Co., and the yield was 31 quarts and 1 pint, dry measure. We believe if the gleanings had been threshed, there would have been one bushel.

(Signed) PATRICK FARRELL,
LEONARD LATTEN."

If this is the article Mr. MOXON alludes to, he wishes "particularly to know the nature of the soil where the charcoal was used, whether light or heavy, and whether it had been manured within four years previous?"

The surface soil is a sandy loam, with a small admixture of clay; the subsoil is composed of clay and sand, and is twelve feet deep. By analysis, this soil contained all the chemical ingredients necessary to grow any of the cerealia; and had not been manured, or cultivated, except with grass, for many years. By recent analyses of wheat, rye, oats, corn, buckwheat, &c., it appears that they all contain, not only in the stem, but kernel, the following eleven chemical substances, to wit: potash, soda, lime, magnesia, alumina, oxide of iron, oxide of manganese, silica, sulphuric acid, phosphoric acid, and chlorine. If one of these be entirely absent from a soil, the cerealia cannot grow in it, they all being essential to vegetable existence. Carbon is required likewise to develop the nutritive qualities of the plant. In wheat starch, 52.58 per cent. of carbon is found, and in oak wood the same; when oak wood is burned for the purpose of obtaining charcoal, it is not any part of the wood which forms the carbon by ignition, as is vulgarly supposed, but the carbonaceous substance taken up in its growth; by burning, the carbon being less combustible than the other elements, oxygen and hydrogen remains.

If you will take the trouble to examine a sound piece of charcoal an eighteenth of an inch in diameter, you will find one hundred and fifty pores; an inch in diameter would present over 5,700,000 pores, all of which are surrounded by carbon in its original position, as taken up by the tree in its growing state. Burn this carbon and the ashes will contain lime, silex, clay, and alkali; sometimes a minute particle of iron, so that when burned to ash, it is precisely the same thing as if you were to burn wood in the open air, but not as valuable by any means, inasmuch as its gaseous properties are at once given to the atmosphere, in the form of carbonic acid gas; this gas is the suffocating principle of charcoal which renders it so dangerous as fuel. I mention these facts to show you the effect it had upon my wheat. The soil had not in it sufficient carbon to supply 52.58 per cent.; by an application, therefore, of that simple substance, the other requisites being present, the wheat could not but grow. Its action is permanent; during dry weather it absorbs from the atmosphere 90 times its own volume of gas, which when rain falls, is released, and immediately elaborated by the leaves of the plant. The charcoal then becomes charged with water to the same amount which is yielded to the plant during drouth.

The lot on which I grew the wheat in question, was immediately seeded down with clover and timothy, consequently I have had no opportunity of experimenting further upon it. I have, however, tried numerous experiments with wheat, manuring with compounds, and highly nitrogenized manures, obtaining 64¾ lbs. to the bushel, and 18 per cent. of gluten, which is the all important principle. Wheat generally, throughout the United States, does not contain much more than 7 per cent. That is the reason why our flour will not make vermicelli and macaroni. The Italian flour yields from 10 to 12 per cent.; consequently the Italians make that substance in great perfection.

Second query. "I have got a pretty large pit of charcoal, and am puzzled how best to pulverize and apply it." I would advise that the pit should be shaken up, and coal exposed to the influence of the sun until dry; then draw it into the barn, and spread it about two inches thick upon the floor,—pass a granite or iron garden roller twice over it, and it will be sufficiently pulverized for agricultural purposes; spread it at the rate of one hundred bushels per acre on subsoiled land, after the wheat has been sown, and once harrowed, then harrow twice and roll once. If your land contains the requisite eleven, I will engage you seventy bushels of wheat per acre, and it shall weigh 64 lbs., provided you cut it in the milk. A portion of the same field, No. 2, cut in the milk, yielded wheat weighing 64¾ lbs. to the bushel, a few acres left standing until the grain was ripe, weighed but 52 lbs.

I am very respectfully, your ob't serv't,
ROB'T L. PELL.

Pelham Farm, March 16, 1847.

EDS. CULTIVATOR—In the March number of the Cultivator, page 91, Mr. MOXON, of Monroe county, inquires for information as to the use of charcoal for manure. I will give one trial that I made with it.

I prepared a piece of eight acres of turf ground by summer-fallowing, about the first of September. The ground being ready for sowing, I had 600 bushels of coal ground, intending to cover the whole; the hands, however, got it all on to about three-fourths of the lot. I found, also, about 30 bushels in a tinner's shanty, which he was cleaning out; (this was saturated with urine.) This added, made 105 bushels to the acre. It

had no effect as manure. The following year, which was last summer, ground planted with corn; no perceptible effect whatever. The soil clay loam. SOLON RAMSDELL. *Elmira, N. Y., March*, 1845.

THE ORCHARD AND THE GARDEN.

MANAGEMENT OF PEAR TREES.—I find in the Cultivator for December, an account of the manner in which an "outcast" pear tree was renovated. The case I wish to present for your consideration is not exactly like this, for my trees are young and thrifty; but the fruit they bear, as described by J. B. W., is "only cracked, blighted, and miserable." Five years ago last November, I procured from an adjacent nursery, six Virgalieu pear trees, and set them in my garden. Believing that trees worth a dollar apiece were also worthy of the best attention, I did not fail to bestow it. Chip manure was repeatedly, and a small quantity of lime occasionally applied, and the ground about the trees kept mellow. The result of all was a rapid growth, one or two of them having already attained a height of sixteen feet, and at this ratio of increase, will soon become large trees. But unless they can be made to produce entirely different fruit from any yet gathered from them, they will be of little value. It has been suggested that so *rapid a growth* is unfavorable to bearing. There may be some truth in this remark. I have been informed that one or two trees of the same variety as mine, and taken from the same nursery, about the same time, but treated with comparative neglect, and of stinted growth, have borne excellent pears. I administered a pretty thorough pruning last spring, and a generous clipping of scions was also taken from them, with no apparent benefit. Thus, Mr. Editor, I have given you the facts in the case; and now I inquire whether the method pursued by J. B. W. to renovate an *old* tree, would, in your opinion, be likely to accomplish a similar result if applied to mine? G. BUTLER. *Clinton, Jan. 1st*, 1847.

REMARKS.—It is impossible to prescribe with precision in such cases as this, without knowing all the essential circumstances. Whether the difficulty is owing to a too rapid growth, to the exhaustion of some essential ingredient in the soil, as is suggested in the case given by J. B. W., or to something else unknown, or to several causes combined, it would be impossible to decide.

The experiment tried by J. B. W., is a very interesting and striking one. The trees were thrifty, and for a time bore well—they subsequently produced only worthless fruit. On the supposition that they had exhausted some essential portion of the soil, the trench was made round them, and new soil applied, with cinders, charcoal, and potash, accompanied by pruning. But a single case like this, though very interesting, is insufficient to establish a rule. Trees which continue growing, are constantly extending their roots into new portions of soil; hence a difficulty in this supposition. The beneficial effect of the newly applied soil and other ingredients, can however scarcely be questioned. The *root pruning*, given in digging the trench, may have had its influence; especially as the tree bore good fruit when younger, and pruning the tops and thus increasing the vigor of the branches, in connexion with the pruning of the roots, doubtless induced a growth very similar to that of the younger tree. Instances are not rare, where good pruning of old and apparently worthless trees, has thrown into them new vigor and productiveness. One part of the operation mentioned by J. B. W., was that of rubbing the tree with soft soap; now, a very successful cultivator informs the writer, that when his pear trees become stunted, a fine thrifty growth is invariably induced by only washing with soft soap, and without any additional treatment. These different influences are merely mentioned, to show in how many different ways this tree may be operated on, without at all meaning to assert that they all operated in the case mentioned.

With the trees mentioned by our correspondent, too rapid growth in connexion with some other unknown cause, may be the source of the difficulty. If he should try the experiment of lessening their luxuriance by root pruning, on one of his trees, and suffer the grass to grow about another, for the same object, he might perhaps determine this point. The treatment of J. B. W., may also be tried on others. To point out any remedy with greater precision than this, would perhaps be impossible, without knowing more of the real cause of the difficulty in question. T.

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INSECT ON GOOSEBERRY AND CURRANT BUSHES.—I have in my garden a large number of gooseberry bushes, most of which are of the finest varieties I could procure. I have picked from them as many as ten bushels of fruit in a season; and whilst most of my neighbors are troubled with mildew, I have never seen any in my garden. Yet I have suffered from another cause.

About three years since, there appeared a small worm on the bushes, in one corner of the garden, which eat off the leaves and left the fruit. The destruction of the leaf stopped the growth of the fruit, and destroyed it The worms have increased until the last season they had spread over the whole garden, and when the gooseberry-leaves were gone, they attacked the currants, and trimmed them also. The worm or caterpillar, is, when full grown, about one inch in length, its color yellow, with black spots. After they have done their work, they go into the ground; after which the garden is filled with millers, which deposit their eggs on the bushes, to hatch out the next season.

I have given this description, hoping that you or some of your numerous correspondents may know of a remedy. I have tried every thing that has been suggested that I have seen, viz., lime, sifted on the bushes, and also mixed with the earth under the bush. I have tried nitre dissolved, and sprinkled on with a watering pot, snuff, and various other articles. A SUBSCRIBER. *Utica, March 5*, 1847. .....

PRESERVING SCIONS.—I have tried at different times several plans for preserving scions from the time of cutting them in February and March, till the time of using them in April and May, and have never succeeded in any other way so well as by packing them in damp saw-dust. They are then easily overhauled if necessary, are entirely clean, the labels are neither covered with dirt or the marks obliterated; they will not become mouldy, are thus kept colder, and consequently may be kept much longer in good condition with the same care, than when packed in earth.

I have kept them thus from February to August, and from July to November, and I doubt not they might have been kept much longer. I packed them in a box, left them in a shady place in the open air.

I am of the opinion that saw-dust is also the best ar-

ticle to pack about the roots of trees that are to be sent a great distance, or kept out of the ground a long time. T. G. YEOMANS. *Walworth, Feb.* 17, 1847.

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RAISED FOOT-PATHS.—Paths through the yard, near dwellings in the country, may be rendered much more convenient, and be much more easily kept in order, by raising an embankment from one to two feet in height. Two years ago, we dug a well, and had a quantity of the broken slate arranged for this purpose. It proved to be a labor-saving operation. Even when deep snows fall, very little (comparatively) settles on this ridge; and it is but a small job to keep the path open, while all the rest of the year, it may be safely traversed with slippers or thin shoes without wetting our feet, as the rain soaks away from the surface almost as soon as it falls. It is never slippery like plank or boards.—D. T. 3 *mo.* 20, 1847.

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"PECULIAR GROWTH OF VARIETIES."—As characteristics to distinguish one variety from another, I apprehend that too much importance has been attached to minute descriptions of the growth of the tree, and the appearance of the buds and leaves. Such marks have led some pomologists into great mistakes. A few years ago, a kind friend sent me scions of what he intended for the "*Early Red Margaret;*" and when the grafts grew, I observed that they greatly resemled in their downy leaves and slender twigs some that I had obtained from the late ROBERT MANNING; but when the former came into bearing, it proved to be a *winter* apple! almost *white!* and not worth the trouble of gathering! I see one at this very moment from my window, hanging on the tree. Now had my obliging correspondent paid less attention to what he considered the PECULIARITY *of leaf*, and more to the PECULIARITY *of fruit*, he would have been saved from a blunder, and I from the toil of heading-down and grafting the tree anew.—D. THOMAS. *Greatfield, 3d mo.* 31, 1847.

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PLANTING ORCHARDS.—Apple trees should be planted about 30 feet distant from each other; pears and cherries, 20 feet; plums, peaches, nectarines, apricots, and almonds, 12 feet. The large intervening space between the rows of apple and pear trees, may be filled up with rows of pears on quince at 8 or 10 feet apart, or with peaches, plums, &c., and thus all portions of the land will be productive of fruit crops during the period the apples and the pears on the pear stock, are attaining their full development. Quinces should be planted about 8 to 10 feet apart, and as they flourish most in a damp soil, they may be planted in locations that are too moist for most other fruits. The grape delights in a deep friable soil, and although usually found growing in a wild state in moist locations, it accommodates itself to all soils that will admit of its roots penetrating deep and wide, to abstract the requisite nourishment, and there is perhaps no other plant that is susceptible of such universal adaptation to climate and soil by proper management. WM. R. PRINCE. *Flushing, L. I., April*, 1847.

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TRANSPLANTING TREES.—For the northern section of the country, the fore part of May is not too late for transplanting trees; at least it will do to transplant them till their leaves have considerably expanded.

Forest trees, designed for ornamental grounds and for shade, should be grown from seed in nurseries, or open grounds: but where these have not been provided, trees from the woods may answer as a substitute. If the forest is resorted to, it should be the object to obtain trees which have been as much as possible exposed to the air or light, and which have good tops, well balanced and regular. Trees of this description will be found to have the best roots, and are most likely to live and thrive. Those which have long slender trunks with but few branches, especially if the branches are chiefly on one side, should not be taken.

In setting out trees, care should be observed that they are not set too deeply in the ground. They do not require to be placed any deeper than they formerly stood. For forest trees, particularly the maple, elm and ash, covering the roots with muck, or the decayed leaves and turf from the woods, will be found very useful in giving the trees a start.

For *evergreens*, it is contended by some who have had considerable experience in the business, that it is best to transplant them quite late in spring, or the first of summer. J. Stetson states, in the *Massachusetts Plowman*, that he has succeeded in transplanting evergreens any time from April to June, if taken from a nursery, because they there form so compact a body of roots, that there is no danger with ordinary care, of shaking the earth from them. He has had the best success in planting in June. He planted 150 white pines, on the 22d of June, 1826, and the whole lot with the exception of three, lived. These three had the earth beaten off their roots in being moved, and, as was to have been expected, died.

In some trials which were made in this vicinity last year, almost equal success attended the planting.

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BLACK KNOTS ON PLUMS.—Whatever be the cause of this disaster, there need be no difference or difficulty with regard to its prevention. Excision and burning of the affected branches has proved completely effectual where promptly and unremittingly applied. Some, indeed, have complained of failure; but in these cases the disease appears to have made great progress before the remedy was applied; or else the operation was not closely followed up on every successive appearance of the excresences.

Some readers will remember to have seen notices of the efficacy of washing the branches in strong brine. Some instances have lately occurred where the application of soft soap has given a similar result; and an acquaintance has very successfully applied a mixture of soft soap and salt. The excresences, if recent, soon wither and disappear. It may happen however, that some parts of the trees or remote branches may be inaccessible, and that excision may prove the easier of the two. T.

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WASH FOR FRUIT TREES.—Lime wash, or whitewash, is not considered as good for trees as potash-wash. The latter is made by dissolving potash in water, at the rate of one pound to a gallon. It may be applied with a brush, in the spring, or at any other season, and will, by one or two applications, render the bark smooth and clean. For old trunks, with thick and rigid bark, Mr. DOWNING, (in the *Fruit and Fruit Trees of America,*) recommends a wash of soft soap. He thinks it better for this purpose than potash, "as a portion of it remains on the surface of the bark for some time, and with the action of every rain is dissolved and penetrates into every crevice, destroying the insects and softening the bark itself."

INVIGORATING FRUIT TREES.—The papers often contain notices of the advantages of applying ashes, salt, cinders, charcoal, lime, soot, &c., to fruit trees, to increase their growth; these are often beneficial in moderate quantities, and occasionally eminently so in certain conditions of the tree or soil; but the treatment which is most strikingly beneficial, and in the greatest number of cases, is to make the soil deep and rich, and to keep it clean and mellow by constant cultivation. Hence the selection of stony ground or side-hills is bad policy.

PUBLIC PLEASURE GROUNDS.—The Tennessee Farmer states that measures are in progress for purchasing a piece of ground at Nashville for a garden for horticultural improvement and ornamental pleasure grounds. This is well worthy the imitation of other cities. T.

AGRICULTURAL SOCIETIES.

LIST OF PREMIUMS FOR 1847,

OF THE

NEW-YORK STATE AGRICULTURAL SOCIETY.

(*Concluded from page* 118.)

SUGAR.

Best 25 lbs. maple sugar,....$10
2d best,..... 5
3d best,..... Col. Tour.
4th best,.....Vol. Trans.

SILK.

Best specimen manufactured, (woven into cloth or ribbons,)..... $15
2d best,..... 10
3d best, ... Col. Tour.
4th best,..... Vol. Trans.
Best specimen not less than one pound reeled silk,.... $5
2d best,..... Col. Tour.
3d best,..... Vol. Trans.

Best specimen of sewing silk, not less than 1 lb , of domestic growth,..... $10
2d best,..... 5
3d best,..... Col. Tour.
4th best,.....Vol. Trans.
Best one-half bushel cocoons, 1847,..... $8
2d best,..... Col. Tour.
3d best ..... Vol. Trans.

DOMESTIC MANUFACTURES.

Best woolen blankets, $5—2d, $4—3d, $3.
Best ten yards flannel, $5—2d, $4—3d, $3.
Best ten yards woolen cloth, $5—2d, $4—3d, $3.
Best woolen carpet, $5—2d, $4—3d, $3.
Best tow cloth, 15 yards, $5—2d, Vol. Trans.
Best ten yards linen, $5—2d, $4, 3d, $3.
Best ten yards linen diaper, $5—2d, $4—3d, $3.
Best hearth rug, $5—2d, $4—3d, $3—4th, $2—5th, Volume Transactions.
Best ten yards kersey, $3—2d, $2—3d, Trans.

Best rag carpet, 15 yards, $3—2d, $2—3d, Trans.
Best double carpet coverlet, $4—2d $3—3d, $2—4th, Trans.
Best pair woolen knit stockings, $2—2d, Trans.
Best wove woolen stockings, $2—2d, Trans.
Best cotton wove stockings, $2—2d, Trans.
Best pound of linen sewing thread, $2—2d, Trans.
Best linen wove stockings, $2—2d, Trans.
Best linen knit stockings, $2—2d. Trans.
Best knit cotton stockings, $2—2d, Trans.

Discretionary Premiums will be awarded for other articles deemworthy by the committee.

NEEDLE, SHELL, AND WAX WORK.

Best ornamental needle work,..... $1 and Diploma.
" ottoman covers, ... " "
" table covers,..... " "
" group flowers, ... " "
" variety of worsted work, ... " "
" fancy chair work with needle,..... " "
" worked cushion and back, ... " "
" worked collar and handkerchief,..... " "
" woolen shawl, ... " "
" worked quilts,..... " "
" white quilts, ... " "
" silk patch-work quilt, ... " "
" fringe mittens, ... " "
" port-folio, worked, ... " "
" bonnets, silk, ... " "
" " straw, ... " "
" lace capes, ... " "
" lamp stand mat, ... " "
" ornamental shell work,..... $3 and Diploma.
" specimen of wax flowers, ... 2 "

Discretionary Premiums to be awarded for other articles which are deemed entitled to commendation.

FLOWERS.

PROFESSIONAL LIST.

Greatest variety and quantity of flowers, ... $5

Dahlias.

Greatest variety..... .... $5
Best 24 dissimilar blooms, .. 3

Roses.

Greatest variety..... 5
Best 24 dissimilar blooms,... 3

Phloxes.

Best 12 varieties,..... 3
Best seedling 2

Verbenas.

Greatest variety and number. 3
Best 12 varieties,..... 2
Best seedling. 2

German Asters.

Best collection, ... 3

Pansies.

Best and greatest variety,... 3
Best 24 varieties,..... 2

AMATEUR LIST.

Greatest variety and quantity of flowers,..... Silver Medal.

Dahlias.

Greatest variety.. Silver Medal.
Best 12 dissimilar blooms, Horticulturist.

Roses.

Greatest variety,. Silver Medal.
Best 12 dissimilar blooms, Horticulturist.

Phloxes.

Best 6 varieties,. Horticulturist.
Best seedling, do.

Verbenas.

Greatest variety,.....Hort.
Best 12 varieties,..... do.
Best seedling,..... do.

German Asters.

Best collection, ... Hort.

Pansies.

Best and greatest variety, Horticulturist.
Best 12 varieties,..... Hort.

GENERAL LIST.

OPEN TO ALL COMPETITORS.

Best collection Green House Plants owned by one person, ... Silver Medal.
Best Floral Design, ... do.
Best Floral ornament, ... do.
2d do. ..... Col'ns Tour.
3d do. ..... Washington's Letters.
Best hand Bouquet, "flat" ..... Horticulturist.
2d do. do. ..... Washington's Letters.
3d do. do. ..... Transactions.
Best hand Bouquet. "round,"..... Horticulturist,
2d do. do. ..... Washington's Letters.
3d do. do. ..... Transactions.

VEGETABLES.

24 best stalks, celery..... $1
6 best heads cauliflower,..... 1
6 best heads broccoli,..... 1
12 best white table turneps,..... 1
12 best carrots,..... 1
12 best table beets, ... 1
12 best parsneps,..... 1
12 best onions,..... 1
3 best heads of cabbage, ... 1
12 best tomatoes,..... 1
2 best purple egg plants,..... 1
12 best sweet potatoes,..... 1
Best half peck Lima beans,..... 1
Best half peck Windsor beans,..... 1
Best bunch double parsley,..... 1
Three best squashes,..... 1
Largest pumpkin,..... 1
12 best ears seed corn,..... 1
Best half peck table potatoes,..... 1
Second best,..... 1
Best seedling potato, ... 1

Discretionary Premiums will be awarded on choice garden products not above enumerated.

MISCELLANEOUS.

Best Iron Gate for farm purposes,..... Silver Medal.
Best ornamental cast-iron vase, on pedestal,..... do.
Best sample drain tile, ... do.
Best quarter of an acre of osier willow, and the best specimens manufactured from the product,..... $5
Best specimen wire hurdle fence, to be accompanied with an account of cost, ... Silver Medal.

PAINTINGS AND DRAWINGS.

Best specimen,..... $10 and Dip.
Best specimen of animal portraits. ..... 10 and Dip.
Best drawing of show grounds and buildings, ... Diploma.

STOVES.

Possessing some new and valuable improvements.

Best cooking stove for wood fire,..... Diploma.
Second best,..... Silver Medal.
Best cooking stove for coal fire,..... Diploma.
Second best,..... Silver Medal.
Best parlor stove,..... Diploma.
Second best,..... Silver Medal.

For improvements and machinery useful to the farmer and having valuable properties, premiums will be awarded.

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PREMIUMS ON FRUIT.

APPLES.

For the greatest and best variety of good table apples, 3 of each variety; named and labeled, grown by exhibitor, Downing's Fruits and Fruit Trees of America. Colored plates.
For the 2d best,.. ..... $5 and Downing's common edition.
3d best,..... Vol. Trans.
The best 12 varieties of table apples, labelled, $5 and Downing's common edition.
2d best do,..... $2 and do.
The best 6 winter varieties do., labelled,..... 3 and do.
2d best do., ... 1 and Trans.

PEARS.

For the greatest number of varieties of good pears, named and labelled..... Downing's book, colored plates.
2d greatest, do.,..... $5 and Downing's com. edition.
3d do.,..... Vol. Trans.
For the best select collection of first rate autumn pears, named and labelled, ... $5 and Downing's com. edition.
2d best..... 2 and do.
For the largest and best collection of winter pears, named and labelled..... $3 and Downing's com. edition.
2d best do..... Downing's com. edition.
Best collection of newly introduced pears, with a description, &c., as provided for new variety of seedling apples, Downing's colored plates.

PEACHES.

Best 12 varieties, labelled,..... $5 and Downing's com. edition.
2d do..... 2 and do.
Best 6 varieties, labelled,..... 3 and do.
2d do..... 1 and do.
Best 12 peaches,..... 2 and do.
2d do ..... Downing's do.
Best seedling variety, 6 specimens, 3 and do.
2d do.,..... 2 and do.

PLUMS.

Best collection of plums, 6 specimens each variety, $5 and Downing's com. edition.
2d do..... $5 and Downing's com. edition.
Best 6 varieties of good plums, 6 specimens each, $3 and Thomas' Fruit Culturist.
2d do..... $1 and Thomas' Fruit Cult.
Best 12 plums choice variety,... .... 1 and do.
2d do..... Thomas' Fruit Cult.
Best seedling plums, with descriptions, as in apples, $5 and Downing's com. edition.
2d best,..... $2 and Downing's com. edition.

NECTARINES AND APRICOTS.

Best and greatest number of good varieties, 6 specimens each, labelled ,..... $3 and Downing's com. edition.
2d do..... 2 and Thomas' Fruit. Cult.
Best 12 specimens of any good variety,.. $1 and Down. com. ed.
2d do.,..... 1 and Thomas' Fr. Cul.

QUINCES.

Best 12 quinces of any variety,.. $3 and Downing's com. edition.
2d do..... 1 and Thomas' Fruit Cult.
3d do.,..... Thomas' Fruit Cult.

GRAPES.

Best and most extensive collection of good native grapes, grown in open air, ... $5 and Down. com. edition.
2d do.,..... 2 and do.
Best 3 varieties of native or foreign grapes, grown under glass, 3 bunches each to be shown,..... $5 and Down. com. edition.
2d do..... 2 and do.
Best dish of native grapes..... Thomas' Fruit Cult.

WATERMELONS.

Best 6 six specimens of any variety, $3 and Bridgman's Gardener's Assistant.
2d do.,..... $1 and Bridgman.

MUSKMELONS.

Best 6 specimens of any variety, ... $3 and Bridgman.
2d do.,..... 1 and do.

CRANBERRIES.

Best peck of domestic culture, ... $5
2d do , ... $2

To be accompanied with a full description of the manner of cultivation, nature of soil, &c.

Any premiums may be withheld in the discretion of the committee, if the samples exhibited are not worthy of a premium.

The fruit exhibited and for which premiums are awarded, to be at the disposal of the committee.

Six vols. of Downing, common edition, and twelve of Thomas' Fruit Cult., will be awarded by the committee, in their discretion, for choice fruits not enumerated.

WINTER MEETING.

For the best new seedling variety of winter apples, of decidedly superior quality and valuable for exportation; one dozen specimens to be exhibited: together with a history of its origin; a description of the growth, character and habits of the tree, and the growing of the fruit—such fruit to be adjudged by the committee as of the first character for orchard purposes, Downing's book, colored plates.
For the 2d best do., ... $5 and Down. com. edition.

The above new seedling variety to be sent to B. P. JOHNSON, Secretary, Agricultural Rooms, Albany, before the 15th January, 1848, for examination.

For the best new fall seedling apple for all purposes, conditions and descriptions as above, ... $5 and Down. com. edition.
2d best do..... 2 and do.

These last named to be exhibited at the Annual Fair and Show of the Society, in 1848.

Resolved, That a committee of —— be appointed by the Executive Committee, who shall report at the next annual meeting a list of not exceeding 30 kinds of apples, which shall be in their opinion best adapted to the economical demands of the people of this state, and to be best suited to the different localities of the same, comprising their most extensive use in all seasons, for home consumption, and for exportation, the individual names of said fruits, a drawing of each separate kind, with a particular description thereof; and that in this connection they also take into consideration the several classes of fine fruits as adapted to the above purposes, and —— dollars be appropriated as in the judgment of the Executive Committee shall be necessary to accomplish this object.

Committee.—Lewis F. Allen, Black Rock; A. J. Downing, Newburgh; Hon. Samuel Young, Ballston; Dr. H. Wendell, Albany; and J. W. Bissell, Rochester.

DISCRETIONARY PREMIUMS,

Will be awarded for articles of merit exhibited by *mechanics*, in all the various branches—and it is hoped that a general exhibition will be made.

Plate will be substituted for money premiums in all cases, at the option of competitor

FIELD CROPS.—AT WINTER MEETING.

Best crop of wheat raised upon any farm, not less than two acres, to be harvested, threshed and measured, ... $15
2d best,..... $10 | 3d do.,..... Vol. Trans.
Best crop of spring wheat, not less than two acres, to be harvested, &c.,..... $10
2d do.,..... $8 | 3d do.,..... Vol. Trans.
Best crop of Indian corn, not less than 2 acres, to be gathered, shelled, and weighed, between the 20th December and 5th January, ... $20
2d do.,..... ..... $15 | 3d do.,..... $8
Best crop of barley, not less than 2 acres, to be harvested, &c.. $10
2d do.,..... $8 | 3d do., ... Vol. Trans.
Best crop of rye, 2 acres,..... $8
2d do.,..... $5 | Third do.,..... Vol. Trans.
Best crop of oats, 2 acres, &c..... $10
2d do..... $8 | 3d do., ... Trans.
Best crop of potatoes, not less than one acre, to be dug and measured, of a good table quality..... $10
2d do..... $8 | 3d do., ... Trans.
Best crop of potatoes, as to quantity, not less than 1 acre, ... $10
2d do ,..... $8 | 3d do.,..... Trans.
Best crop of ruta baga, not less than one acre, to be weighed, and 50 lbs. estimated as a bushel..... $10
2d do.,..... $8 | 3d do., ... Trans.
Best crop of sugar beets, not less than one-half an acre, weight as above,..... $8
2d do.,..... $5 | 3d do., ... Trans.
Best crop carrots, ½ an acre, ... $8
2d do..... $5 | 3d do.,..... Trans.
Best crop mangel wurtzel, ½ an acre..... $8
2d do.,..... $5 | 3d do., ... Trans.
Best crop of peas, 1 acre, ... $8
2d do ..... $5 | 3d do.,..... Trans.
Best crop of beans, not less than 1 acre,..... $8
2d do.,..... $5 | 3d do.,..... Trans.
Best acre of corn fodder, with a particular account of manner of cultivation and securing the crop, ... $10
Best half acre of hops, with a full account of method of cultivating and preparing crop for market..... $10
Best half-acre of flax, with like statements as above, ... 5
Best half acre of tobacco, do. do. 5
Best acre of broom corn, do. do. 5
Best acre of clover seed, do. do. 5
Best acre of timothy seed, do. do. 5

EXPERIMENTS.

Whereas, The Agricultural Society of the State of New-York, has not an experimental farm; and whereas, to some extent, satisfactory experiments can be made by intelligent farmers on their own farms, therefore

Resolved, That the undermentioned list of premiums be offered to induce public spirited individuals to lend their valuable aid in extending the boundaries of accurate rural knowledge.

Three premiums will be awarded of $30, $20, and 10, in January, 1848, for the best experiment upon a herd of not less than 8 cows, to determine the relative advantages of soiling, or depasturing milch cows. The experiment to be conducted as follows:—

1st. The experiment must commence on the first day of May, and be continued until the first day of November.

2. The cows to be divided in two lots of four each. One lot to be soiled, the other depastured. Before commencing the experiment, each lot must be weighed, and the record of the weight returned to the committee. It is necessary that the two lots shall be as near alike in weight and milking properties as possible.

3d. The milk of each lot to be weighed separate daily.

4th. The manure made from those soiled to be ascertained in cords.

5th. An account to be kept of the expense of soiling, also detailed statements of the entire management, together with the measurement of the land occupied in soiling, and each to be returned to the committee.

6th. A description and measurement of the land occupied for pasture, also to be made.

7th Each lot to be weighed at the conclusion of the experiment.

For the best experiment to be continued through three crops, to ascertain in bushels of grain and weight of stalks or straw, the actual value of manure to a farmer. The experiments to be conducted as follows, viz:—

1. Three contiguous acres of ground shall be selected.

2. One acre of which shall be manured with not more than ten cords of common barn yard manure the first year, and plowed under. The second acre to be manured with fermented or composted manure, to be applied in any manner the experimenter chooses; but a full account of the mode of making the compost, and the manner of its application, accompanied with a statement of the cost of making and application, will be required.

3. The three acres are to be planted with corn the first year; the second to be sowed with barley or oats; the third crop to be winter grain: an accurate account of the yield of each crop to be kept.

4. A full account of the whole management and all the details respecting the culture and the circumstances affecting the crop.

5. The several kinds of soil to be particularly described, and specimens transmitted to the State Society for analysis before commencing the experiment—and also at the conclusion of the experiment—discriminating carefully between each acre.

For the best.....$40 | 2d best..... $30 | 3d best..... $20

N. B. The specimens of soil to be selected for analysis, must be taken from the surface, in different parts of the acre. Where the acre is green sward, the sample must be taken just at the termination of the roots of the grass. Specimens should also be selected from the depth of seven or eight inches. At all events, imme-

diately below the usual depth which the plow runs. The specimens of soil must in no case be mixed; and should consist of about 1 pound sewed in a cotton bag.

$20 will be paid at the annual meeting of the society in 1848, to the person who will make the most satisfactory agricultural experiment, accuracy and the importance of the experiment to be taken into consideration. A full detail of the experiment and its results must accompany the application.

For the best managed entire flock of sheep of not less than 100, to be awarded at the annual meeting in 1848.

Best,..... $30 | 2d best, ... 20 | 3d best $10

The applicants for these premiums will be required to furnish the Society with the following information, viz:—

1. The kind and quantity of food, and its value.
2. The quantity and quality of wool—this to be determined by its being submitted to the stapling of some respectable manufacturing establishment, whose certificate shall accompany the application for the premium.
3d. The number of the increase.
4. Kind of sheep, and the number of ewes, wethers and bucks
5. The value of sheep when fattened, and the value of lambs for the butcher.

Competition from persons not residents of the State.

Premiums of Plate, Medals, and Diplomas, will be awarded on—

The best bull of any breed, 3 years old.
" " 2 "
On the best cow, 3 years old.
" heifer, 2 "
" " 1 year old.
" yoke of working oxen.
" pair fat cattle.
" stallion.
" brood mare.
" pair matched horses.
" buck, long or middle wooled.
" " fine wool.
" pen of Merino and Saxony ewes, not less than 5 each.

B. P. JOHNSON, Sec'y.

Any information desired by persons who intend to compete for premiums, will be furnished by the Secretary, on application, and he solicits free and full inquiries from all who are desirous of competing at the Fair, or of presenting articles for exhibition.

NEW-YORK STATE AGRICULTURAI SOCIETY.

Meeting of the Executive Committee at the Society's Hall, April 8.—GEORGE VAIL, President; WM. BUEL, C. N. BEMENT, Vice-Presidents; AMBROSE STEVENS, Executive Committee; J. McD. McINTYRE, Treasurer; B. P. JOHNSON, Recording Secretary.

Letters were read from Prof. Gardiner, Geo. Geddes, J. Delafield, Harper and Brothers, Asa Fitch, M. D., A. J. Downing, Hon. Z. Pratt, S. L. Randall, W. W. McCay, T. Whiting, J. M'Donald, Dr. R Wheeler, J. M'Dederer, A. G. Carll, A. Redfield, A. M Paine, H. Mesier, Hon. E. Cost, J. Wilkinson, M. D. Blauvelt, S. W. Jewett, Dr. A Doubleday, Jacob Morris, C. Hawley, H. L. Day, A. B. Allen, and O. Phelps.

J. DELAFIELD, Esq., President of the Seneca Co. Ag. Society, furnished an interesting account of the organization of Town Associations and Farmers Clubs in Seneca county. He says: "I have had the pleasure to address several meetings of from 40 to 60 farmers, assembled in the town of Fayette, and to witness an interest well worthy of the high pursuits in which they are engaged." "I am happy to add, these meetings are looked forward to by our *Young Men*, as objects of pleasure and profit."

MATHIAS P. COONS, of Lansingburgh, Rensselaer county, exhibited a model fence, with cast-iron posts, called "Coons' cast-iron post farm and ornamental fence." The advantages claimed for this fence are:

1st. The durability of the cast-iron posts.

2d. The cheapness and ease with which a fence may be constructed—cheaper than an ordinary post and board fence.

3d. It may be placed permanently on all soils, or, if necessary, used as a hurdle fence, and can be put up as fast as the bottom rails can be laid for an ordinary fence.

4th. The posts are such that they are sufficient for any ordinary purpose, weighing from eight to ten pounds.

The Board were of the opinion that the improvement of Mr. Coons is a valuable one, and deserving of encouragement. [A specimen of the fence may be seen at the Agricultural Rooms.]

HOWARD DELANO, of Mottville, Onondaga county, presented to the Society a premium diamond plow, of most superior finish. Thanks of Board tendered Mr. Delano. [Plow may be seen at Agricultural Rooms. Farmers are invited to examine this beautiful specimen of work.]

Mr. STEVENS presented to the Society, on behalf of the editor of the American Agriculturist, the vols. of that paper for 1844, '45, and '46. Thanks to the donor.

C. N. BEMENT presented a copy of American Poulterer's Companion. Thanks to the donor.

On motion of Mr. STEVENS, the following preamble and resolution were adopted:—

Whereas it is important to the best interests of the Society in its endeavors to advance the agricultural interest of the State, that its library should be furnished with all the important works on agriculture, especially those relating to the agriculture of this country:

Resolved, That the members of the Society and others interested in its prosperity, be invited to aid in furnishing agricultural works for the library, by donation or otherwise, as they shall judge best.

AGRICULTURAL SURVEY.

On motion of Mr. JOHNSON,

Resolved, That the sum of $—— be appropriated for the purpose of obtaining, during the present year, the survey of one or more counties, and that the plan submitted by the Secretary be adopted as the basis of such surveys.

Resolved, That the Secretary be directed to open a correspondence with gentlemen in different counties, in relation to such survey, and report at the next meeting the results of his correspondence, and the terms on which an accurate survey of any county can be obtained.

ADDITIONAL PREMIUMS—ON FOREIGN STOCK.

For the best Stallion of any breed,..... $15
For the 2d best " " 10
For the 3d best " " ..... Youatt.
For the best Brood Mare,..... $15
For the 2d best " 10
For the 3d best " ..... Youatt.

ON POTATOES.

For the best and greatest variety of Seedling Potatoes of approved varieties, $10.

The SECRETARY stated that 47 counties had reported, *being all*, as he was informed, that were organized in the State.

On motion of Mr. STEVENS, a committee, consisting of Messrs. Johnson, Tucker, McIntyre and Stevens, were appointed to report at the next meeting a plan for the gradual increase of the library, and a list of such works as are now needed as books of reference.

B. P. JOHNSON, *Secretary*.

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Agricultural Rooms, Albany, April 8, 1847.

The Executive Committee have the satisfaction to announce to the Agriculturists of the State of New York, that our distinguished fellow-citizen, the Hon. SILAS WRIGHT, has accepted an invitation to deliver the annual address at the Fair of the State Ag. Society at Saratoga, on the 16th of September next.

It will doubtless have been perceived from the published proceedings of the Executive Committee, that they have, in accordance with the recommendation expressed by the Society at the annual meeting in January, located the Fair at Saratoga Springs, where it will be held on the 14th, 15th and 16th of September, 1847.

A delegation of the committee visited Saratoga, and selected a fine elevated plat of ground, within a quarter of a mile of Congress spring, containing an area of fifteen acres or more, which will be enclosed. Spacious buildings will be erected within the enclosure, with ample accommodations for all articles presented for exhibition.

Care will also be taken, that arrangements on an extensive scale appropriate to the occasion, be made for the reception and exhibition of every description of stock, farm implements, articles of domestic manufacture, fruits, flowers, and articles of mechanic skill, &c.

Arrangements will be made with the several Railroad Companies for the gratuitous transportation of stock as well as other articles designed for exhibition, so as to arrive a day or two previous to the first day of exhibition.

The two railroads leading to Saratoga will be in readiness to transport without hindrance or delay the visitors who may desire to be present on the occasion.

GEO. VAIL, *President*.
B. P. JOHNSON, *Secretary*.

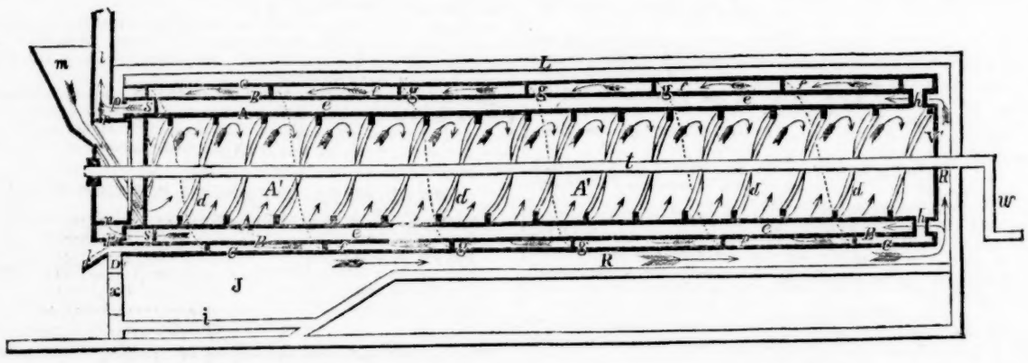
NEW-YORK COUNTY AG. SOCIETIES.

RENSSELAER.—This Society will hold its exhibition at Troy, Wednesday and Thursday, September 22d and 23d. They have offered a handsome list of premiums, and we presume, from the well-known character of the previous exhibitions of this Society, that the next show will be large and attractive.

CAYUGA.—The next exhibition of this Society will take place at Auburn on the 6th and 7th days of October. A handsome sum is offered in premiums, embracing all departments of agriculture and horticulture, as well as farm implements and domestic manufactures in general—all well calculated to excite emulation, and bring out a full exhibition. We tender the Society our thanks for their offer of several volumes of the Cultivator, as premiums.

CALEDONIA, *Vermont*.—Show to be held at St. Johnsbury, Oct. 7th. The premium list shows that the interest of agriculture is well sustained by this Society. A rule is adopted by which every one who pays a dollar to the Treasurer of the Society, is entitled to a volume of the Cultivator.

ROOT CROPS.—William Garbutt, of Wheatland, N. Y., who raises from three to five acres of roots per annum, besides potatoes, is convinced from long experience, that cooked potatoes are the cheapest food for feeding swine; that ruta-bagas and field beets are most valuable for neat stock, and especially to grain growers who have an abundance of straw; that carrots are most profitable as extra feed for horses in winter; and that the large sugar beet and mangel wurtzel are the most valuable succulent food for milch cows in winter. T.



HOWARD'S ROTARY CYLINDRICAL GRAIN DRYER.

EDITORS CULTIVATOR—In the last number of the Cultivator, you request some one to furnish you a description of the process of kiln-drying grain, especially Indian corn, with the expense, &c. Agreeably to your request, I have procured, and enclose to you, a copy of Mr. SEBRE HOWARD'S patent for a "Rotary Cylindrical Grain Dryer." A great number of these dryers have been put up in different parts of the country, and give the most perfect satisfaction. I have been informed that the expense of kiln-drying corn in one of Mr. Howard's dryers, is not over one fourth of a cent per bushel; and that an apparatus capable of kiln-drying sixteen hundred bushels per day will not cost over five hundred dollars. The operation of the machine is clearly set forth in the specification. Respectfully yours,

Z. C. ROBBINS, Attorney for Patents.

Washington, D. C., March 23, 1847.

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To all whom it may concern; be it known, that I, Sebre Howard, of Adrian, in the county of Lenawee, and state of Michigan, have invented a new and improved Kiln-Drying apparatus, which I denominate Howard's Rotary Cylindrical Grain-Dryer; and I do hereby declare the following to be a full and accurate description of the construction and operation thereof, reference being had to the accompanying drawings, making a part of this specification. My Rotary Cylindrical Grain Dryer is composed of three metalic cylindrical casings, of different sizes, combined concentrically, the one within another, forming annular spaces between the central and the interior and exterior casings. The concentric combined casings are placed within a heating chamber and suspended on a horizontal shaft passing through the centre of the inner casing, on which they revolve.

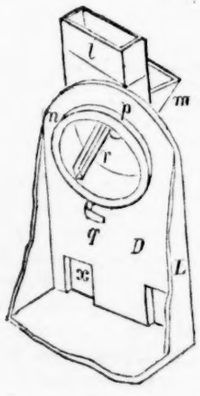


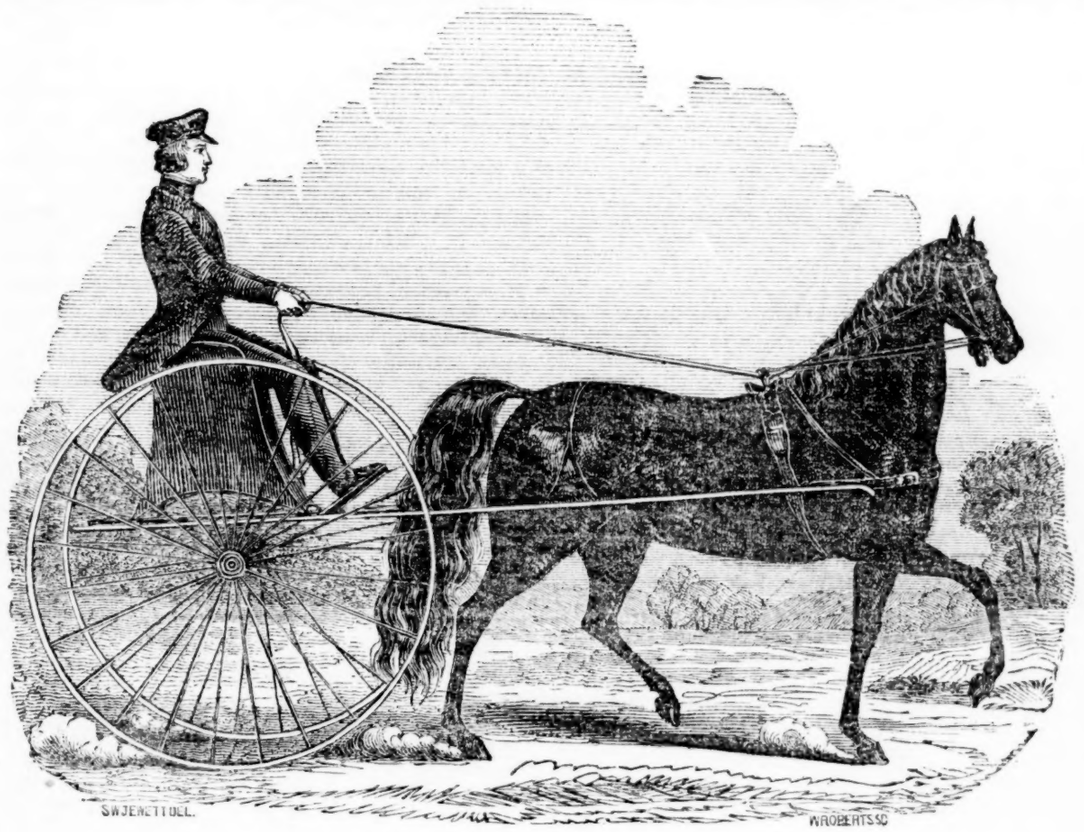
Fig. 2.

In the accompanying drawing, fig. 1 is a vertical longitudinal section through the centre of my kiln-drying apparatus; and fig. 2 is a perspective elevation of the interior side of the head or front end of the heating chamber, detached from the other parts of the same. Similar letters refer to corresponding parts in both figures. *A*, is the interior; *B*, is the central, and *C*, is the exterior concentric casing; *e*, is the annular space between the casings *A* and *B*; and *f* is the annular space between the casings *B* and *C*; *R*, is the chamber, enclosing the combined concentric casings; the enclosing wall *L*, of the chamber *R*, may be composed of brick or other suitable material; *t*, is the horizontal shaft passing through the centre of the combined concentric casings; *v*, *v*, are radial arms by which it is secured to the front end of the same; *V* is a head which closes up the rear end of the inner concentric casing. The shaft *t*, has its bearing in the head *D*, and rear end of the heating chamber, *R*; at its rear end a crank *w*, or a pulley, or cog wheel, is attached, for the purpose of communicating motion to the combined concentric casings. On the rear side of the head *D*, of the chamber *R*, circular projecting flanges *n* and *p*, are secured concentric with each other, the inner circular flange, *n*, passes a few inches within the front end of the inner concentric casing *A*, fitting accurately to the same. The exterior flange P, fits accurately to the central concentric casing *B*, and passes a few inches within the same; the annular space between the circular flanges, *n* and *p*, communicates with the chimney *l*, and connects the annular space *e*, with the same. *J* is a furnace, placed at the front end of the chamber *R*, underneath the combined concentric casings, constructed in any well known or usual manner; *i*, are the grate bars; *x*, are the furnace doors.

The heat of the furnace, and gaseous products of combustion, first act upon the exterior surface of the outer concentric casings *C*, (as it is revolved.) from front to rear; at the rear end they enter the annular space *e*, and are carried forward through the same to the chimney *l*, acting upon the exterior surface of the casing *A*, and the interior surface of the casing *B*.

The grain (or other substance) to be kiln-dryed, is placed in a receptacle or hopper *m*, attached to the front head *D*, of the chamber *R*, and passes through a spout *r*, into the heating chamber *A*, within the interior of the inner casing *A*; here it is acted upon by the heat occasioned by the passage of the hot air and gases from the furnace, through the annular flue space *e*, to the chimney, and is gradually carried from the front to the rear end of the circular heating chamber *A*, by the rotary action of the continuous spiral thread *d*, projecting from its interior surface.

The grain being carried to the rear end of the chamber *A*, against the head *v*, which closes up the same, falls through connecting tubes *h*, *h*, into the annular space *f*, between the concentric casings *B* and *C*. In the annular space *f*, a spiral thread *g*, is placed, winding around in the same from rear to front, in a reversed position to that in the chamber *A*, which carries the grain back again to the front end of the concentric casings by the rotary action of the same, arriving at which, a hook *q*, attached to the front end *D*, of the chamber *R*, and extending into the annular space *f*, takes the grain



THE MORGAN HORSE, "BLACK HAWK."

from the spiral thread *g*, and forces it into the discharge spout *k*.

The grain, during its passage through the annular space *f*, is acted upon by heat on both its enclosing surfaces at the same time; the casing *C* being acted upon directly by the heat of the furnace, and the casing *B* by the hot air and gaseous products of combustion in their passage from the furnace through the annular flue space *e*, to the chimney.

It will clearly be perceived, as a very valuable feature in my kiln-drying apparatus, that the heating surfaces over which the grain passes, are regularly and constantly increasing in temperature, from the point where the grain enters the circular chamber *A*, to that where it is discharged out of the annular space *f*; this feature, combined with the constantly progressive rotary motion, causes every particle of grain to be equally operated on by heat, without danger of injury from scorching, if proper attention be paid to the furnace.

The red arrows in fig. 1, represent the course of the wheat from the receptacle *m*, through the chamber *A*, and annular space *f*, to the discharge spout *k*; the black arrows represent the course of the hot air and gaseous products of combustion from the furnace to the chimney. I design using my rotary cylindrical grain-dryer, not only for kiln-drying grain of all kinds, but also for drying malt, salt, and every other substance it can be used for, and for the roasting of coffee.

Having thus fully described the construction and operation of my rotary cylindrical grain dryer, what I claim therein as new, and desire to secure by letters patent, is the uniting the cylindrical casings *A*, *B*, and *C*, with each other, and combining them with the furnace *J*, in such a manner as to form a circular heating or drying chamber *A*, within the inner casing *A*; an annular space or drying chamber *f*, connected with the same between the outer casing *C*, and central casing B, and an annular flue space *e*, between the central casing *B* and inner casing *A*, substantially as herein set forth.

I also claim the giving the grain or other substance acted upon, a constantly progressive rotary movement from the front to the rear end of the circular drying chamber *A*.—conducting it into the annular space or drying chamber *f*, and returning the same by a reversed movement to its front end, and discharging the kiln-dried grain at the spout *k*, by the action of the projecting spiral thread *d*, connecting pipes *h*, *h*, and spiral thread *g*, combined and operating substantially in the manner and for the purpose herein set forth. SEBRE HOWARD.

"BLACK HAWK."

EDITORS OF CULTIVATOR—About two years since I furnished you a drawing of Messrs. HILLS' horse "Black Hawk," with a description of that animal, and the Morgan stock in general; all of which was published in the June number of your periodical, and which elicited corroborating remarks from connoisseurs of the horse.

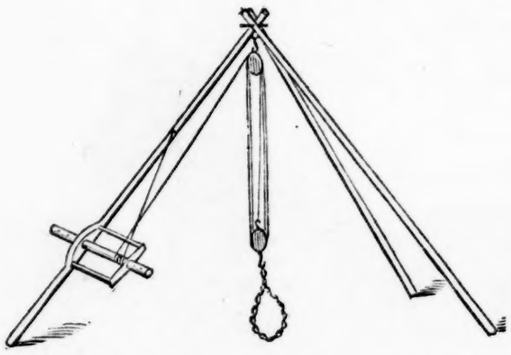
Too much, in my opinion, has not been said in praise of this perfect "Yankee Harness Horse," and the Morgans in general. His stock, most of them, outdo their sire in size. I saw several colts of his get, coming two this season, weighed, some months since, their weights varying from 800 to 1000 pounds. These colts exhibit great action, and are sprightly, mild and attractive.

By the request of the Messrs. HILL, I have sent another drawing of this noted horse, exhibiting him in harness, to the engraver; the cut I presume will be furnished you this month, and I hope to see a perfect figure and representation of the animal. I am happy to inform you that he will be on the ground at your next State show, together with some of his stock.

Weybridge, Vt., April, 1847. SOLOMON W. JEWETT.

[For a challenge in reference to "Black Hawk," see advertisement in this number.]

THE FARMER'S NOTE BOOK.



GIN FOR LOADING LOGS AND STONE.—I noticed a communication in one of the numbers of the Cultivator for last year, containing an inquiry for a machine with which one or two men could load large stone, on a wagon. As no one has responded to that inquiry, and as I have a gin for that purpose, I thought it not improper to transmit to you for publication, a diagram and description of it.

I constructed one of this kind of gins, a few years since, for the purpose of loading *saw-logs* on a wagon, and I found it to be a machine of *great utility*, for this and for *other* purposes; and especially for hoisting large stone high enough to place them on a wagon. It is a machine of great mechanical power, simple in its construction, and can be handled and worked by one man with great facility. As a portable gin for loading large stone, for lifting stone from a quarry, for loading timber on wheels, and for many other purposes, I think it cannot be surpassed.

The shears, or "gin poles," as some call them, are fourteen feet in length, and supported at the top by an iron bar eighteen inches long, made fast in the shear which has the windlass attached to it. The other two shears have an inch and a half hole near the top, into which the iron bar enters when the shears are erect. The holes must be large, so that the lower ends of the shears may be placed at some distance asunder. You will see by the cut, that the slack rope of the tackles, winds on the windlass, which is turned by wooden bars, which are thrust into holes near the end of it. A few notches are cut in the windlass, into which a follower drops, to prevent its turning backwards.

If it is desirable to apply more power, a system of cog-wheels, with a crank on the shaft of the smallest one, may be placed where the windlass is. (I once attached a couple of cog-wheels to my gin; and with it a lad could elevate a ton or more with ease.)

When I load saw-logs with this gin, if the tackle rope is strong enough, I hitch the chain near the middle of the log, and back the wagon under it. If it is very heavy, elevate one end, and let it rest on the forward part of the wagon, while the other end is raised high enough for the hinder part of the wagon to pass under; and to be coupled to the fore part. To unload a log, place two rails on the wagon, one on either side of the log, and pry up the forward end, and lay a roller on the two rails under the log, and push it off the hind end of the wagon. In order to load large stone, elevate them high enough to back the wagon under, and let them drop on it. If the stone are not very large, a single rope, passing over the upper pulley and to the windlass, is sufficient. A gin constructed in this manner is very useful in elevating earth, when digging a well, and also to let down stone for the wall.

My gin cost me $2.50, besides half a day's work, making it. Tackle blocks, $1.25. Rope, 75 cts. Iron bar to support the upper ends, and the timber, 50 cts.

Thus you will perceive that this gin is "*multum in parvo*," in every point of view. With it one man can perform what *ten* men could not without it; and if you consider it worthy of a place in your paper, it is at your disposal. S. E. TODD. *Lansing, Tompkins Co., N. Y.*, 1847.

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INSECT IN CLOVER SEED.—After a great deal of search, I have found the clover seed fly, and herewith enclose two of the insects between two small pieces of mica. I hope they will attract the attention of some entomologist. I have examined them with a microscope, with the intention of having a drawing made from them; but finding it more difficult than I expected. I solicited the aid of Mr. Witherell, Prof. of Chemistry and Mathematics in the Ithaca Academy. He examined the fly, and found it a different species from any he had seen before.

The insect eats the clover seed in the fall and latter part of summer. I have known the seed that ripens with the first growth of the clover, almost eat up by it. At the time it was mowed it appeared to be well-filled, with seed. Some seasons they destroy from one-third to one-half of my crop. The worm commences its work on the outside of the seeds, and eats all but the part that is next to the stem, so that if the chit of the seed is left it will grow, although it may not be more than a fourth part of the seed.

The way I detected the fly was this: About the first of October last, I rubbed out some seed by hand, and selected some which I knew had worms in it, and put it in a small vial, over the mouth of which a paper was tied, with small holes made through it, and hung the vial up in the room. The flies began to hatch out about the first of February. When they first appear they are almost white, but as they become older they turn brown. Those I send you were three or four days old when they were put under the microscope. Their natural shape may have been somewhat altered by pressure between the pieces of mica. I regret that I could not send them to you alive. HENRY BREWER. *Enfield. Tompkins Co N. Y. March* 1, 1847.

The insect forwarded by Mr. BREWER, is too much mutilated to enable us to form any useful conclusions from an examination of it. We are inclined to think it is different from anything we have before seen; but we can form no idea of the manner in which it attacks the clover-seed. We would thank Mr. B. to send us some seed which has been eaten by the worm, and at the proper season, some which has the egg in the seed, that we may see the insect in all its stages.—EDS.]

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AMERICAN AGRICULTURAL BOOKS.—In the December number of Mr. DOWNING'S usually candid and liberal Horticultural Magazine, I find an article which speaks in so depreciating a manner of what have seemed to me meritorious publications, that I am induced to take up a little of your room for the purpose of inquiring into the merits of the case. The article in question is a review of Mr. Allen's "American Agriculture." This book I have not sen, but am ready to believe all the good that is said of it. The passage which attracted my attention is the following:

"What American farmers want, as we conceive, at the present moment, are plain and sensible reasons for our *best* agricultural practice, *as it is*, and equally common sense hints and directions *for its improvement*. Books written upon such a plan, by competent men, will go a thousand times farther toward making good husbandmen, and improving those already skillful, than a republication of all the elaborate French, English, or German systems of draining, subsoiling, and irrigating, that the best authors on the other side of the Atlantic have yet produced."

Now Mr. Downing has done more than any one else to give an impulse, in this country, to an improved taste in rural architecture, landscape gardening, and horticulture; but what sort of figure would his book on architecture have made, had he been limited to the ground he marks out for agricultural writers? How would it sound to him to be bidden to write a book of "plain and sensible reasons for our best architectural practice as it is, and *equally* common-sense hints and directions for its improvement?" It does not accuse him of plagiarism to say that without recourse to Gilpin, Price, Loudon, and others, his works would hardly have been so complete. Nay, he will probably allow that no one can have a sound judgment in architecture who is not acquainted with the theory and practice of the best masters in all the styles.

This mode of treating a subject, and this alone, raises it to the rank of a liberal art or profession. We demand that the soil shall cultivate the man, while the man cultivates the soil. Again Mr. Downing says,

"It is idle to lay before farmers, in a country like ours, where capital is rarely or never employed in farming—where land is plentiful, but labor scarce and dear—systems of farming, based on just the contrary state of things—where farming is carried on with abundant capital, and where the price of labor and means of tillage are such, that it will pay a good interest upon the capital employed. It is very much like discoursing to the keeper of a 'country store,' upon the large principles of commerce which govern the transactions of such houses as the Barings, or Brown, Brothers & Co."

Now, I would contend that the *principles* of commerce, by which the storekeeper is to be guided, are identically the same with those by which Browns or Barings must be guided. It is only the practice, the detail, that differs. And this makes the difference between man and man, that one sees only the detail in what he does; the other sees the principle that must apply in all similar cases. There can be no thorough knowledge of the principles of any art, without a knowledge of the practice in all those places where the art is best practised.

I cannot agree that our farmers have no capital. Every farmer has a farm, house, barn, stock, crops, perhaps $5000, perhaps $10,000. Is not this a capital? It is invested, to be sure, in his business, like that of every other business man. Moreover, he has an income, say $250 or $500 in cash, over and above the living of his family. What does he do with it? Buys more land, or lets it out on interest. And this I conceive to be one of the greatest evils in our farming—the abuse of capital. It is not universal, but it is too common that the farmer who has risen to wealth, who has his $5,000 or $10,000 at interest, owns no more plows, and has no better stock, or barns, than his poorer neighbor.

I am no advocate of English practice for our farmers; but I am an advocate of principles whereever I find them. Any man would be a better farmer for reading Jethro Tull's book on Horse-hoeing Husbandry, yet Tull will persuade no man to forego the use of manure. Any man will be a better plow-maker for reading Stephen's account of the Scotch plow, yet he will not attempt to persuade our farmers to buy plows at $25 apiece. Judge Buel, in the Farmer's Instructor, gives instructions in plowing "compiled" from Low's Agriculture, that will make any man a better plowman; yet we need not enter into all the mysteries of "twice-gathering" and "cleaving down with gore-furrows."

But after all, what do we not owe to English agriculture; for we are bound to be just, and "give the devil his due." In the plow, if they owe something to us, we owe vastly more to them. The cultivator is English, and our cultivator is yet far behind several of theirs. The harrow we have not improved upon in any essential. The subsoil plow is English. We have adopted all these things with great skill. We have excellent plows at a fourth the cost; we make our implements light, cheap, and strong; but not yet so thorough nor so perfect in their work.

But I am getting away from my object, which was to deprecate, and enter my protest against the disparagement of any attempt towards the formation of a library for our farmers, not of books only that shall be written expressly for them, on the principle of a Sunday school library for children, where pains are taken that they may learn no harm, but of books from any language, in the reading and choosing and application of which, farmers may use their own faculties, and learn to apply principles from whatever quarter they may come. W. *Lenox, 18th Feb.*, 1847.

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To Improve an Agricultural Paper.—In a recent number of your periodical, we threw out a few hints in reference to obtaining subscribers for that and similar publications. We now propose, as many of our farmers are not satisfied in regard to the practical value of such papers, to offer a few suggestions, which, if they, the farmers, will carry into practice, we have no doubt will render them so truly acceptable that they will be considered an indispensible requisite of every farming establishment.

First, then, we say *to you, farmers*, subscribe for an agricultural paper forthwith, and pay in advance, for much depends on the number of subscribers, and the promptness of payment in making these papers truly valuable. The editor must study much in order to meet all the exigencies that await him in furnishing his patrons with intellectual food, and in order to do this he must have scientific works around him for reference and comparison, in order that he can bring forth facts in their most substantial and living form, to establish fixed and immutable principles. Such works as are not only convenient but necessary for him to possess, are not to be found among the cheap literature of story and song which some shallow-brained novelist or shattered poet has written, to while away an idle hour, and gull a host of voracious readers, whose imaginations are as sickly, and whose ideas are as vapid as his own. Such works as he must have are expensive; they are the fruit of minds given to toil, and who, after all their labor, it may be, meet with but a scanty reward for the service they have endured.

Then, again, the illustrations are expensive. Their importance in giving value to agricultural works, no one will question. They explain the mysterious and illuminate the dark. They place subjects before the mind clearly, which without their aid would be incomprehensible. But they cannot be formed of soap bubbles. No, they must be drawn on solid basis, with taste and correctness or they are valueless. This, too, is an expensive business, and one that can be supported only by those who appreciate and stand with open hands to sustain it. Every name that is added to the subscription list, then, goes to help improve the *character* of the paper, by giving the editor new means of increasing his own amount of knowledge, and placing funds in his

hands, whereby he can give descriptive views of that knowledge more frequently, and in better style. Let every farmer, then, give his aid in improving the "agricultural paper," by subscribing for its support, and inducing his neighbors, if possible, to unite with him in so simple and noble an enterprize. It is a very common plea with farmers, that they do not think the paper adapted to their climate or their soil. It may not, it is true, in many particulars. Do the physician's books lead him to remedies for every grade of the diseases on which they treat, or the "reports" on which the lawyer predicates his opinions of the fairness of his client's suit, bring cases strictly parallel to those on which hope of success depends? No, these things would be utterly impossible. They establish general principles, from which the observation and keen discernment can gather facts, which, by varying to meet new cases, different in form, but the same in principle, go not to establish new facts, but by an extended ramification of old ones, to bear on the case at issue, and thus give a confirmation to principles already laid down, whereby each particular object of research may be supported and attained.

It is a truth not to be denied, that farmers are not minute enough in their narrations, in giving particulars with regard to soil, climate, and mode of proceeding; but if this were all done, similar soils vary in productive character in different localities, so that no positive rule can be given in any case where the same causes will produce precisely similar effects, and the variations may result in the same town or neighborhood, as well as if the districts were more remote. So we may fairly infer, that agriculture, as a profession, can never be reduced to a system of managing, by definitely prescribed rules, or voluminous recipes, but like the physician or the lawyer, the farmer may have his general principles treasured in his library, from which he can draw them as necessity requires, and combine them with his close observation, and apply them by his active and discriminative judgment, to result in desirable effects.

But we will name another way whereby the agricultural paper can be improved. Keep notes, and send in for publication, the result of *your own experience*, and in doing this, enter as minutely into the matter as you please. This will result in one benefit at least. It will cut off your neighbor from the everlasting excuse you have so long made, "I don't think the paper adapted to our soil." Go *on*, we say, by your own wise efforts make it better, by making it "more practical," and more beneficial to your neighbors. Yes, ye brilliant ones, who have such an eye to see the darkness around you, let your light burst forth and dispel *that darkness* and gloom with which prejudice and ignorance are to pass away. W. BACON. *Richmond*, 1847.

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DETAIL OF EXPERIENCE IN FARMING.—I have read the Cultivator a long time, and find it full of entertaining matter. I here give you a short account of a long experience in farming. In 1795, I commenced for myself, in the town of Stanford, Dutchess county, N. Y. My father said he could not help me any, but I might sow the "hill lot" with rye. It was a thin, slaty soil —no water in the lot, and on that account had never been laid to pasture, but had always been sown to rye or buckwheat as long as I could remember. I summerfallowed it, plowed deep, bringing the sweat out of the team pretty profusely. In the fall I sowed it with wheat. Next harvest I had the best wheat in the neighborhood.

Now this shows two things, that rye does not much exhaust the land for wheat, and that by frequent and deep plowings, some land can be recruited without much manure.

In 1798 or '99, I ran in debt for a farm in what was called the "Little Nine Partners." It appeared to be a poor slaty soil; all the plow fields on the farm had been sown to rye for a number of years. I summer-fallowed, clovered, and plastered, and got up the name of the farm, sold it, and bought a better farm in Red Hook. The soil of that was sandy and dry. I managed it as I had done the other. My Dutch neighbors taught me something about raising wheat.

I next bought a farm in the town of Schodack, Rensselaer county, N. Y. After living there some years, I bought a piece of worn-out land, about thirty acres, adjoining the farm, of a sandy and cobble-stone soil. Soon after planting, I broke it up, and gave it a good coat of plaster, harrowing it over several times in the course of the summer, kept it clean from weeds, and in the fall sowed it with wheat, and had a good crop. I stocked it down in the spring with clover. It is called a good lot to this day.

I merely tell this that farmers need not be afraid to purchase what is called "worn-out land," provided it is not too wet. Let farmers manure as much as they can. I now live where we need but little manure; but the decree has gone forth, and is as true as the book of Genesis:—"thorns and thistles shall the earth bring forth, and in the sweat of thy face shalt thou eat bread all the days of thy life." From this there is no escape. WM. CANFIELD. *Granville, Ohio, March*, 1847.

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AGRICULTURAL CAPABILITIES OF GEORGIA.—I have recently moved from the flat, low lands of Burke, for health's sake, to the hilly section of middle Georgia. This part of the country is as broken as any part of New England, but there are no high elevations. The streams are numerous, and most of them are bordered by very fertile, low grounds.

The hill-sides were originally free, productive lands, and where the soil still remains, are yet good, but the system of skimming with a set of queer shaped irons, misnamed plows, which loosen about as much of the surface as the summer's rains can easily carry down the steep hill-sides, into the creeks and bottoms, has left this part of the state shorn of its primitive fertility and beauty, and it now presents a mournful spectacle of gulls and gullies, and denuded hill-sides, the unmistakeable indications of an erroneous system of cultivation.

Yet there is much of this country, that with proper management may be brought back to a state of fertility, and is not surpassed for advantages of location, perhaps in the world.

There is probably no country in which can be produced a greater number of the staple commodities and luxuries of life, than middle Georgia. Cotton, all the grains and fruits of the northern and middle states, thrive here exceedingly well. In fact, I have seen some fine crops of wheat raised here, under no other culture than being sown upon the unbroken ground, and plowed in with a bull-tongue plow.

Many of the fruits of warm climates thrive well, as grapes, figs, almonds, apricots, pomegranates, &c. All valuable roots and tubers, from a pea-nut to a sweet potato, we have, (or can have,) in abundance.

There are here, generally, two varieties of soil; the stiff red land, with a subsoil of pure red clay; and upon the surface a large quantity of white silicious rock is disseminated in small fragments, so as in some situations, to nearly cover the whole surface, but not to a depth to materially obstruct the cultivation. This soil requires a great amount of rain, through the growing season to produce well, but with this, it usually yields abundant returns for the labor bestowed. The farmers upon this soil usually do not break it to a greater depth than two or three inches. If it were subsoiled to the depth of a foot, it would probably stand drouth much

better. This soil is well suited to Indian corn, and the smaller grains. The other variety is a gray land, formed, I think, from the detritus, or decomposition of granite, gneiss, and a greenish rock, into the formation of which hornblende enters largely.

There are numerous examples of the decomposing of granite boulders in this section, in all stages of decomposition. They seem to crumble down into their original elements.

This gray soil is better adapted to cotton and roots; the different varieties of the sweet potato flourish finely in the gray soil, as also peach and other fruit trees.

There is an intermediate soil, possessing eminently the advantages of both, called "*mulatto*" land, of a chocolate color, with a very stiff clay subsoil. This is remarkably good; but neither this nor the red land is as sure as the gray, because a short drouth does not affect the gray as it does the others.

The gray land is mostly quite porous, containing much of the gravel formed by the crumbling of the granite. These soils are frequently found only separated by a narrow drain, the opposite sides of which are marked with great distinctness, being often in perfect contrast. Sometimes they run into each other by insensible gradations.

Now, if a chemical analysis was entered into to determine the most suitable manure for these soils, is it not reasonable that a distinct analysis should be instituted for different parts of a field, according to the different variety of soil presented upon the surface? These lands can be purchased of farmers wishing to go west, for from two to three dollars per acre, and are readily improved; farms often containing a portion of low-grounds or creek bottom, worth at least twenty-five dollars per acre.

Timber is getting scarce on some farms. Will chestnut bear transplanting? If it will, abundance of it can be procured on the poorer ridges in this section.

This I consider a favorable location for northern emigrants, who wish to change their residence on account of pulmonary diseases. PAUL DAVIDSON. *Raytown, Ga., Feb.* 8, 1848. .....

ANALYSIS OF VEGETABLES.—Permit me to ask you to compile, and present in a table through the Cultivator, an analysis of the following plants and vegetables: Indian corn, barley, wheat, rye, oats, sweet potato or yam, cow pea, carrot, turnep, cabbage, beet, celery, leek, onion, asparagus, lettuce, and radish. It cannot but be apparent to you, that my purpose is to ascertain what manures to apply to the production of the above named vegetables, and especially to those soils from which, by previous and continued cultivation, those substances essential to the growth of a plant on the same piece of land have been taken away. Leibig and other great chemists have taught us the relative value of manures; but I am in the dark as to the constituents of plants, and hence my application to you, as I desire to avoid the waste of my manures in random *guesses*, in attempting to supply a supposed deficiency in my soil. H. *Milledgeville, Geo., Feb.*, 1847.

[If any one can furnish us with an analysis comprising the information above called for, we shall feel obliged; for ourselves, we know of no table which comprehends it.—EDS.] .....

TRAINING HEIFERS.—As I have never seen in your paper any plan of treating heifers, when they first calve, and afterwards, until they are gentle to milk, I will give you a few hints. The first thing is to be kind to them, for a kind pat of the hand, with a gentle tone of the voice, will often do more good than all the knotty poles that have been broken over their backs. As soon as the calf is dropped, go immediately to them and handle the teats as if going to milk, which is often necessary and they will bear it much better than they will after the bag has become feverish and sore. If the bag is likely to cake before calving, grease it with some soft grease. After the calf is strong enough to leave the cow, confine him in one place, and always put the cow to the calf, and not the calf to the cow. Handle the teats, also, to get her accustomed to being milked. When the calf is old enough to wean or slaughter, put the heifer in the same place still; she will readily be milked, and will not mourn for her calf as she will when treated differently. The advantage of this kind of treatment is, heifers readily give their milk down at a time and in a place to which they have been accustomed.

Cows treated in this way, frequently, never miss their calves, which saves them from very unpleasant feelings, and their masters from one of the unpleasantsst sounds that ever was heard from a dumb beast. I speak from thirty-five years' experience in breaking heifers, and have never had to fat a single heifer, or cheat some one else with her because I could not milk her myself. A. W. ST. JOHN. *Darien, Ct., March 4th*, 1847.

P. S.—There is one thing, if it were more generally practiced, would be an advantage. In advertising, cattle, sheep, hogs, poultry, or anything else, we are unable to form an opinion about purchasing, unless we know the cost. Would it not be better to have the price mentioned? .....

ORIGIN OF THE MORGAN HORSES.—There seem to be some persons who still continue to suppose that there was "French Canadian" blood in the original horse which belonged to my father, Justin Morgan, and from which the excellent stock of "Morgan horses" sprung; while no one who has attended to the clear proofs to the contrary, which have from time to time appeared in your valuable journal, can now justly entertain any such notion.

In the fall of 1795, my father brought the horse, then a two years old colt, from Springfield, Massachusetts, to Randolph, Vermont. Mr. John Morgan, of Lima, N. Y., who, though of the same name, is but a distant relative of my father's family, then lived, as I have been informed, in Springfield, and had every opportunity, as I believe, of knowing the truth in relation to the horse.

Mr. J. Morgan says he was not only well acquainted with my father's horse, but also with the sire of that horse, "True Briton, or Beautiful Bay;" and he states that he, (Mr. J. M.) kept the latter horse at the time my father's colt was begotten by him. He says also, that he was acquainted with "Traveller," "Diamond," and "Wild Air," and at the time knew them to be English blood horses. Mr. John Morgan further says, that however much may have been said relative to my father having brought the horse from Canada, he knows that it was not so. His means of knowledge, and the respectability of his character, entitles his statements to the fullest credit.

The fact that my father died about two and a half years after he brought the colt into Randolph, his children all being young, and the horse having been sold out of the family very soon after my father's decease, may account for his pedigree not being better understood.

I have a perfect recollection of the horse when my father owned him and afterwards, and have always lived where his stock is well known, and well remember that my father always spoke of him as a horse of the best blood. I remember that two running horses—one, I believe, from Long Island, called "Sweepstakes," the other, I think, from the north part of the state of New-York, called "Silvertail,"—had races with him in my father's life time, when his horse was but four years old, for a considerable sum, for those days, and they were both beaten by him with ease. I was present at Brookfield, Vt., although then but a small boy, and

and witnessed the race with "Sweepstakes." My father's horse was not only a swift runner, but a very fast trotter. Those who have seen the "Gilford Morgan," will have a very correct idea of the size, shape, style, and action of the original Morgan horse, as the resemblance between them is very close, not only in those particulars, but most others, except color. The stock, also, of the "Gilford Morgan," with which I have always been well acquainted, is very similar to that of the original horse.

I consider it a very fortunate circumstance that the attention of the public has at length become awakened to the great value and importance of the Morgan stock of horses, in season to save the blood in such purity as we yet have it in some individuals. A few more years of indifference and delay would have insured its loss beyond the possibility of recovery. JUSTIN MORGAN. *Stockbridge, Vt., Feb. 27, 1847.*

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SUMMER FALLOWING FOR WHEAT.—To procure a good crop of wheat, no means are more certain than a summer fallow; it not only benefits the present but future crops; most especially so on those soils wherein clay predominates. Fallowing, when skillfully performed, not only loosens the soil, but also, by absorption, improves it; that is, the various gases which are evolved from vegetable decompositions, and float in the atmosphere, are absorbed by the earth, and there retained for the nourishment of future growths. Rain water is frequently impregnated with these gases, and by it they are carried to the soil. Another effect of fallowing is to offer different portions of the soil to the sun, the rays of which act powerfully on its chemical combinations, and by heat, put in action the great galvanic battery of nature. Fallowing, also, when properly done, destroys much that should not grow in a wheat field; and it is to this part that I shall confine my attention.

I prefer for a fallow, ground that has been one season in corn, which should be turned over as shallow as it can be, to be well done. The object in this shallow plowing, is to place those seeds which are within three or four inches of the surface, in such position that germination will take place. Many seeds, when placed five or six inches from the surface, will not grow at all; but remain inert. Cockle is one of these, and I have evidence sufficient for me to believe that it will lay in the ground inert for a number of years, (I think five or more,) and then, if placed suitably, will grow. Clover seed will remain under a sod for eighteen months and then grow. Shallow plowing, in the first instance, does not place seeds so low but they will vegetate freely. If the field be a sward, and it can be inverted at three inches, I should suppose it deep enough, and as to time, I would do it about the first of sixth month, [June.] or during that month. In a week or ten days, I would harrow it well, lengthwise the furrows, which will materially assist the vegetation of seeds in the soil. In six weeks from the first plowing, stir it crossways not less than six or seven inches deep. If a sod, it will hardly be sufficiently decomposed for this, so early, and may need one or two harrowings before it will be. The fore part of eighth month, [August,] give it a plowing, as deep as it can well be done, so as to move an inch or more of the subsoil. This mode is the most effectual to remove pests from the crops, of any I have seen tried, and greatly does it improve the earth, and will, I believe, generally well repay the expense. Apropos to this:—In the summer of 1842, I broke a piece for wheat, which was a stiff timothy sod—soil limestone clay. It was done in the sixth month. A fence had been moved from one side of it the preceding year, and the old row planted with potatoes. This potato patch was frequently stirred in 1842, and in the 8th month I commenced stirring, making the place where the year before I raised the Mercers, part of the first "land." From the partial decomposition of the sod, I was induced to quit with but one land. Early in the 9th month, it was all plowed and seeded. In the tenth month, (1st of it,) it appeared beautiful—but the fly commenced its ravages, and with the exception of that one land they denuded the field till it was bare as a road, and that land was as distinctly marked as a plow could have done it. The wheat on it was thick, while the other with re-sowing was thin. I leave others to judge of the cause. ROB'T HATTON. *Richmond, Ind., 1847.*

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AGRICULTURAL PAPERS—RECIPE FOR SWEENY.—I am sorry to say that some farmers are opposed to "book-farming" as they call it, and will not read an agricultural paper. Yet, there is a prospect of better things. I have lent quite a number of copies of the Cultivator to some of our best farmers, who are well pleased with the work, and I have hopes of being able to send more names soon. I presume you know that this county is one of the lumbering counties of Pennsylvania, and consequently very little attention is paid to farming; yet we have some excellent land, and for two years back, there has been a large overplus of all kinds of grain. It is an excellent county for fruit, and last fall a number of orchards of choice fruit were planted. And as timber in many parts of this county is getting scarce, more attention will be paid to farming.

I have a recipe for the sweeny in horses. It may be new to some of the readers of the Cultivator. I can safely say it is the best and cheapest remedy for that complaint I ever knew or tried. I have driven teams and owned horses for a number of years.

Take one quart of upshot whiskey, or fourth proof brandy, two ounces gum camphor, two ounces ground cloves, nine pods red pepper, one table spoonful alum salt. Let it stand twenty-four hours; then rub the affected part three times in twenty-four hours. When the first quart is used, put a quart of brandy or whiskey on the grounds, and use as before. JOHN MILES. *Curwensville, Feb. 20th, 1847.*

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WESTERN VIRGINIA.—J. C. MCGREW. ESQ., of Kingwood, Preston Co., Va., writes—"Western Virginia, possesses, I believe, as great physical resources advantages, and adaptation for manufacturing, for agriculture, and *grazing*, combined, as any country in the world, and nothing is wanting but enterprize and skill, to develop fully and profitably these resources."

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POTATO STARCH.—Can you give me any information concerning the manufacture of potato starch? I wish to put up a machine to be worked by horse power, but I cannot find any person capable of constructing a machine for grinding the potatoes. I have made an experimental machine, with a drum sixteen inches in diameter, covered with a tin grater; but I cannot make it feed itself without clogging. What is the proper size of a drum to work to the best advantage? and how should the hopper be constructed to make it feed without clogging or breaking the potatoes? I wish to know, also, how many pounds of starch can be made from a bushel of good potatoes, and what is the starch worth per pound by the quantity? MAINE.

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THE PAST WINTER IN MARYLAND—FARMER'S CLUBS. Our winter has been very mild—not much ice, and some of our ice-houses have not an ounce in them.

I have been an observer of the Hessian fly for nearly 20 years, and I do not remember to have seen the insect in the "flax-seed" state in the month of February before this winter.

In your February number I see mention of "Farmers' Clubs." They are, in my judgment, among the

best means that can be devised for the benefit of the farming interest. The object of every member should be to give his views in as condensed a manner as accuracy will allow, and after the club has received the views of each member, (all of whom should be practical farmers,) a committee of not more than three should be appointed to review and prepare the matter for publication. MARTIN GOLDSBOROUGH. *Trappe, Md., March*, 1847.

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STEAMING APPARATUS.—The steaming apparatus which "*Subscriber*" enquires for in the April number, I think could be had of N. Britton, Buffalo. He made a small one for us upon a plan of which he held the patent, that works admirably. Ours is used in the winter in the candle factory, for heating and clarifying tallow, and in the summer in the dairy. It is not large; two persons can carry it easily full of water, as they might do of the size necessary to do the work required by "*Subscriber*." I cannot give him any good idea of it without drawings, and these I cannot make. They are made of copper, and I saw a small hand one, in his shop which had been exchanged for a larger size, that if not sold, would be just the thing. They require no brick work, and can be used any where when you can get ten feet of stove pipe, and are as safe as a common stove. If "Subscriber" were to write to Mr. Britton, I think he would get a correct idea of the "*steamer*." T. C. PETERS. *Darien, April 7th*, 1847.

If your correspondent, who wishes information as to a steam apparatus, will call on me at this place, he can see one, although not now in operation, once used by me at a large feeding establishment, which is very complete; the boiler weighs 300 lbs., is large and very strong, and its valves and apparatus as perfect as can be. I have steamed with it the quantity of chaff he wishes, in one hour after the steam was up, and cooked a 120 gallon hogshead of potatoes in 22 minutes. As to the benefit resulting from its use, from actual experiment, I found it very great, especially for cows in winter; the only difficulty, being one too common in this country, to find a man to obey orders and manage it as it should be done. The business for which it was used one year being discontinued, I would sell it; it cost $150, and should your correspondent fancy it, he can have it for half that sum.—W. H. DENNING. *Dutchess Co., Fishkill Landing, April* 4, 1847.

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CURE FOR "HORSE CHOLERA."—A correspondent wishes us to republish the following from the *Brooklyn Advocate*. The recipe, he says, is a certain cure for the "horse cholera," which was so destructive on Long Island last summer:

"As soon as it is discovered that the horse is seized with the epidemic, take four qts. of brine from the pork or beef barrel, and pour it down his throat; which must be immediately followed with a dose of castor oil, say 1 pint; then bleed in the nostrils. Rub well the nostrils, forehead, and crown, with a solution of camphor and alcohol; lastly, take red pepper from the garden, and rub the forehead and crown until blisters are raised. If these remedies are applied in time the horse will find relief immediately, or shortly after the blisters are raised. If not, nor in a number of hours after, in nineteen cases out of twenty, death is certain, let what may be resorted to."

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RURAL ARCHITECTURE.—I was much pleased with the articles of "H., OF ONEIDA CO.," and "T.," in your March number, and should be glad to see the plans of both gentlemen tried in this section. I have not the slightest doubt that a house can be built of *unburnt brick*, with the vertical board covering, which will be superior in every respect to a common brick house, at half the expense of the latter. At any rate, I shall try the experiment the coming season, and send you the result. Will "J. J. T.," or some other person, be kind enough to inform me whether *unburnt brick* can be made in the fall, dried, kept in an out-house exposed to frost all winter, and be fit for use the ensuing spring or summer? RURALIST. *New Hartford, N. Y.*

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"WOOL GROWING IN VIRGINIA."—Under this head, the *Southern Planter* publishes a letter dated "CORTLAND VILLAGE, N. Y., Feb. 4, 1847," and directed to "Gen. A. A. CHAPMAN, M. C." The letter is introduced by a note from Gen. C., in which it is said—

"You will perceive that the writer is a gentleman of the highest order of intelligence. He has been engaged for a number of years in sheep and wool growing, and is justly esteemed the most enlightened sheep breeder in the North; and moreover is said to be reliable and trust-worthy in all things."

It seems that Gen. C. had determined to purchase some sheep from "*the most enlightened breeder of the North*," and the "breeder" writes to inform him (Gen. C.,) that his order will be filled with "very great pleasure," "though," says he, "I could sell such sheep as I shall send you, for more money, by simply letting it be known that they are for sale."(!!)

In regard to wool-growing, the "breeder" observes that "the first cost of producing wool in this State, is 30 1-3 cents per pound," and that good wool has never been lower than 30 cents per pound; but he says, "Let it go down to 25 cents, and then with *my sheep* I can raise it at a *profit* on *my farm*, which cost $40 per acre." He observes however, that "it would, perhaps, be impossible to obtain (!) or breed *very large* flocks of equal quality to mine." (!!)

In reference to a market for wool produced in this country, it is said—"Do you ask where we are to find a market, if all go to growing wool? All over Europe! As I said a day or two since to Samuel Lawrence, the great manufacturer, * * * the lands of Germany are too high priced and too *poorly grassed* (the same is true of Spain.) to compete with us. * * * We can "beat" all the Austro-Oriental nations or regions, and we can, in fifty years, drive all the European nations *entirely out of the production of this staple*." (!!!)

The "breeder" next invites Gen. C. to look over some of the numbers of the *Farmers' Library and Monthly Journal of Agriculture*, in which he says he has been writing "a series of very elaborate articles on Sheep Husbandry at the South," and for which he says the publishers have requested me [him] to order engravings of sheep, barns, implements, &c., *ad libitum*."

The following language shows the *disinterestedness* of the "breeder." He says—"I never lose my interest in sheep sold by me, and I would rather at any time that a disaster should happen here in my own flock, than in any of those little colonies of mine which are starting up in so many parts of the United States (!!) * * * The introduction of sheep South, is a *hobby* with me, and if I can by-and-by be recognised as one of the prime movers in that great revolution which it will effect in your whole system of agriculture, my trophy will (*me ipse*) be worth *half* as much as one won in 'threshing' Mexican rancheros."

As to prices, the "breeder" states that he *frequently* "sold lots last season at from $35 to $50 "per head," but this year he has mostly "discouraged all Northern offers," that he may reserve the best of his flock, which he is willing to sell to Gen. C. or any southern "*gentleman*." (!!)

In regard to the selection of the sheep, the "breeder" says—"I need not say, sir, that the selection will be as favorable to you as if you yourself were present. I never could *induce* any individual in *this* county, where I have sold a great many, to select. It is universally insisted that I *shall* select." (!)

He states that he sent some sheep last year to the Choctaw station, "and owing to the admirable obedience of my [his] agents," they reached there, as he was informed, "hog fat."

Many persons would undoubtedly be much pleased to learn the name of this "intelligent" and "trust-worthy" sheep-breeder. It would be especially gratifying to know *how long* this superior stock or family of sheep has been in his hands, of how many it consists, and at what price his wool has sold, and if their great excellence has been attained by his "art of breeding," what particular system has been pursued, and through how long a period his experiments with this flock have extended? But seriously, I cannot but wonder, that any man in his senses should have considered this letter in any other light than that of a "humbug," as a specimen of which it is certainly a "rara avis." O. P. Q.

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THE SEASON—GUANO.—Extract of a letter, dated "Queens Co., April 6th, 1847.—Our farmers are generally preparing to sow their oats. Some few have done so already. The weather is unusually cold and wet for this season. Winter grains look very poor, especially such as are on heavy land. Our farmers have sold, the past winter, much corn at high prices—75 to 100 cts. per bushel. There have been some large purchases of Guano for use, the present season. One farmer has 15 tons for his own use. Those who used it last year, generally were pleased with it."

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EFFECT OF EXAMPLE.—A correspondent at Simsbury, Ct., says that although the farmers in that vicinity are opposed to "book-farming," example has more or less influence on them. He cites an instance, as follows: "My father commenced putting swamp muck on his land, some of which is light and sandy. People passing by at the time shook their heads, and said it was of no use, it was a waste of labor; but he told them to wait and see. This was seven years ago; now all these farmers are carting muck themselves, into their yards and on to their lands, and they have greatly improved them."

.....

KILLING RATS.—In the December number of the Cultivator for 1846, you give a recipe for destroying *rats*. Looking over a file of papers for 1830 and '31, I read that pulverized *cantharides*, spread on bread and butter, were a positive remedy for rats—that after partaking of the *dish*, they would leave the premises altogether. ALEXANDER LEEDS. *St. Joseph's, Mich.*

.....

AN IMPORTANT TRIFLE.—We see no reason why writers on farming and domestic economy should not be correct in the use of the English language; yet a very common blunder is committed by many of them, under a false notion of being very accurate and precise.

The plural of words is formed by adding *s* at the *end* of the singular, but in the instance alluded to, it is formed by crowding the *s* into the *middle* of the word, thus,—*spoonful* and *shovelful*, should, like all other single words, be changed to the plural by the addition of *s*, as *spoonfuls* and *shovelfuls*; and not by placing it in the middle, as *spoonsful* and *shovelsful*. If you wish to say three *spoons full*, this will of course be correct, for here there are two distinct words, fully spelled out, and the plural indicates the three implements or spoons used on the occasion; but the word spoonful designates a certain *quantity*, precisely as the word bushel does; and it is no more correct to say *three spoonsful*, than to say *three halfsbushel*. O.

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EXPORTATION OF ICE.—According to the "Horticulturist," New-England ice is shipped summer and winter, on voyages of 16,000 miles, crossing the equator twice, supplying vast ice-houses in the East Indies, and where it is constantly kept the whole year.

WOOL FOR THE ENGLISH MARKETS.

.....

THE season is close at hand when sheep must be sheared, and the wool prepared for market. Considerable of our wool has latterly been sent to England, and more of it might undoubtedly have been sent there to good advantage, but that the bad condition of American wool has greatly retarded its sale, and depreciated its value. Mr. HAMILTON GAY, of New-York, who has been considerably engaged in the exportation of wool, stated in a circular issued last year in reference to the subject, that nearly all the wool sent to England from this country in 1845, was lessened in value to the amount of a penny, English, (about two cents,) per lb. in consequence of the "oil, yolk, and dirt." which the fleeces contained.

Mr. Gay directs that great care should be taken to wash the sheep thoroughly before shearing, and that they should be sheared as soon as they become dry. That in tying up the fleeces, the loose locks, clippings, and tags, and everything unclean, or of an inferior quality, together with the coarse wool from the thighs, if there be any, should be wholly rejected, and the fleeces tied up firmly, so as to keep their shape, and show, as is customary, the best part of the fleece on the outside.

In regard to packing and sacking, he directs that the wool, before it is put in sacks, should be carefully sorted, according to the grades of foreign manufacturers. His directions on this point, are not however, sufficiently minute to enable the wool-grower here to fully understand what should be the character of the different sorts. He says—"The broad-cloth makers in the west of England—the worsted combers of Yorkshire—the flannel manufacturers of Rochdale—and those who make hosiery in Nottingham—purchase in their several markets, a supply suitable only for their own machinery. So nice does this discrimination run, that the fleeces of fine wool taken from the sheep one year old, which were never before shorn, are mostly sent to one part of the country and there sold to be used for one purpose, and the fleeces taken from the same sheep the next season, are taken to another part of the country, and there wrought into a very different kind of goods."

In filling the sacks, Mr. GAY observes that the wool should never be pressed by machinery, but carefully packed by a man inside, and the fleeces of weak staple rejected and packed by themselves.

Mr. MORRELL, in the "*American Shepherd*," gives particular directions in regard to preparing wool for market. He recommends that the fleeces, as fast as they are taken from the sheep, should be spread on a table, the outside uppermost. The fleece is then carefully spread out, the ragged portions from the neck, head, and skirts separated, and the fleece then made as compact as possible, by pushing the sides towards the centre. "The loose wool is then thrown upon the fleece, which is followed by turning over the sides and ends so as to form an oblong stripe, say about two to three feet long, and one and a half wide, which moved to the front edge of the table. He then commences to roll the long stripe, aided by a boy at the other end of it, who lay their arms flat from the elbow to press the wool as the rolling proceeds, till the stripe is reduced to six or nine inches in width, depending on the size of the fleece. The boy then mounts upon the table, and each commences rolling from the ends of the stripe till the parts meet, when the boy rolls his portion on the top of assistant's, firmly pressing it till the twine is passed round both ways and tied, which effectually secures the fleece, no matter how roughly handled. After it receives a slight pressure, it presents somewhat the form of a cheese." He earnestly enjoins that the fleeces should be thoroughly cleansed, and nothing put within them but "*clean things.*"

ANSWERS TO INQUIRIES

.....

Grafting Large Apple Trees.—"Agricola," (Enfield, Ct.) J. J. Thomas, in the *Fruit Culturist*, says, that when it becomes an object to change the tops of large trees by grafting, it is best, "instead of cutting off the large branches and grafting them at once, to prune the top in part, which will cause an emission of vigorous shoots. These are then budded or grafted with ease and success; and as the grafts gradually extend by growth, the remainder of the top may, by successive excisions, be entirely removed." He recommends, however, that trees "which are old, crooked, stunted, or diseased, should be rejected at once."

Low Blackberry Bushes.—"Agricola." The low, or running blackberry, is a very difficult plant to eradicate. Its roots, which are very numerous, possess the power of sending out sprouts, which become tops, from almost every part, and plowing or cutting seems only to multiply them. The best mode of destroying them which we have ever known, is pasturing closely with sheep. The sheep, if kept short, will bite off the briers as soon as they appear above ground, and this course, if continued two or three seasons, will destroy a large portion of them.

Corn Sheller.—L. E., (Naperville, Ill.) We think Clinton's sheller would answer your requisitions. It will fit ears of any size, and will shell the corn perfectly clean from the cob. It is made both single and double. The single medium will shell one hundred and fifty bushels per day, having one man to turn and one to feed. The double one requires two men to feed it, to work to advantage, and is capable of shelling two hundred to two hundred and fifty bushels per day. It may have too cranks attached to it, or it may be easily fitted for horse-power. It is strong and durable, and not likely to get out of order. The price of single machines is $10, and of the double one, $13. They are for sale at the Albany Ag. Warehouse.

Gooseberries.—H. P., (Clifton Park, Saratoga Co., N. Y.) Downing, in his *Fruits and Fruit Trees of America*, says all that is necessary to prevent mildew, is—"1st, to root up and destroy all inferior kinds subject to mildew; 2d, to procure from any of the nurseries some of the best and hardiest Lancashire varieties; 3d, to keep them well manured, and very thoroughly pruned every year." A writer in the April number of the Horticulturist, states that his remedy against mildew in this fruit, is salt hay from the marshes, spread around the bushes to the depth of three inches. It is suggested that common coarse hay, soaked in brine might do as well. For further particulars in regard to the best mode of cultivating the gooseberry, we refer to the article above mentioned.

Ashes, Salt, and Plaster.—A Young Farmer, (New Britain, Ct.) We cannot cite any experiments in answer to your question; but would recommend that you try ashes, salt, and plaster, in the following manner: 1. Apply the three substances mentioned, in the same way and at the same time, *separately*, to three rows of corn of equal length, giving an *equal value* of each substance to each row; next to these three rows, leave one row to which nothing shall be applied. 2. Mix together the *same value of ashes and salt* as in the first case was applied separately to two rows, and apply this mixture to two other rows; to the next row apply plaster as in the first case, and leave the fourth row without anything. 3. Mix together the *same value of ashes, salt, and plaster*, as in the first case was applied to three separate rows, and apply this mixture equally to three rows. 4. Apply a mixture of *salt and plaster* to two rows, as was specified for the other cases. Go through a fourth or half an acre in this way, in alternation, in order that each division of rows may have an equal chance in regard to soil, &c At harvest, carefully weigh the product of each row or division, both stalk and grain; note the result, *and report to us*.

Locust Seed.—"A Subscriber," (Ballston Spa., N. Y.) Locust may be sown in spring as well as fall, but to insure their quickly vegetating, hot water should be poured on the seeds, and they should remain immersed for five to ten minutes. This will soften the hard skins, and if planted immediately, they will vegetate in a few days. We cannot say what quantity of seed would be requisite for an acre. In our practice of raising locust trees, the seed was sown in beds, and the plants transplanted the next season to the places where it was wished to have them grow. The yellow locust is considered preferable for timber. It is for sale by Mr. Thorburn, of this city, at $1.50 per pound. Carrots may be grown to advantage on a clover ley, with rich loamy soil, such as you describe.

Ashes, Rotten Wood, Bones, &c.—1. Does the decay of woody substances, (brush, small branches, &c.,) by rotting on or in the soil, furnish alkali, and benefit land equally, or to a greater extent than if the same had been converted into ashes? *a*.

2. Will bones require to be broken small before the application of sulphuric acid, and what is the best and most economical mode of performing the process of pulverization, and what quantity is required per acre? *b*.

3. Is the fertilizing property of bones injured; and if so, to what extent, by calcination, and how, and in what quantities, should they be applied when burnt? *c*.

4. What is the best way of preserving cabbages through the winter in large quantities, *fresh* and *green*, as I sometimes see them? *d*. P.

a. More alkali would be formed by burning the woody substances, and if the soil was sufficiently light, perhaps greater benefit would be derived by applying the ashes; but if it was a compact, tenacious soil, the greatest benefit would probably be derived from the unburnt vegetable matter, because its greater bulk would tend to render the soil more friable.

b. The advantage of breaking bones before applying sulphuric acid to them, is that they would dissolve sooner than if used whole; but the breaking does not appear to be indispensable. They should be frequently stirred to accelerate the action of the acid. The quantity applied per acre, varies from eight to twenty-five bushels [See Feb. No., p. 53.]

c. By burning, the *gelatine* of bones, which is an excellent manure, is dissipated, and only *bone-earth*, or phosphate of lime remains; but the *exact* difference in the value of burned and unburned bones, we do not know.

d. We must leave this question to those who have had experience in the business.

Proper Construction of Lightning Rods.—Several inquiries have been received in reference to the best means of securing buildings against injury by lightning. There is no doubt that iron rods properly made and attached to the buildings, are a great if not certain protection against this subtle fluid. The great principles to be observed in the construction and erection of lightning rods are, that the connection of the rod should be complete and perfect throughout its whole length; that it should be attached by non-conducting substances; that the rod should be protected against rust, at the points, which should be plated with some metal, such as silver or platina, which will not corrode by exposure to the atmosphere; that the lower end of the rod should be always surrounded by moisture.

The following observations in relation to this subject were written some years since by Professor Olmstead, of Yale College, and published in *Silliman's Journal*.

1. The rod should be closely joined together throughout, either by securing one part within another, or by

welding several parts together; this will prevent the interruption occasioned to the passage of electricity through links or loose joints. [In some instances we have heard of the parts of the rods being so made that one would screw into the other, making the connection more perfect than it otherwise could be.—EDS.]

2. The points of the rod above should be *gilt*, since the conducting power of iron is impaired by oxidation.

3. The rod should descend into the ground far enough to be always in contact with moist earth. This depth will vary in different places. In some places five feet will be sufficient; in others six or seven will be required; and in soils particularly dry, it may be prudent in the season of thunder-storms, to connect the bottom of the rod (by means of a chain or the rod continued,) with a well or vein of water. The chain or rod may be inclosed in some substance, or be painted with a thick coat of lamp-black to keep it from from rusting. When the bottom of the rod terminates in the ground, it may branch off in several directions.

4. The height of the rod above the building should be regulated on this principle; that *a lightning rod will protect a space in every direction from it, of twice its length above the building.*

5. The rod should be fastened to the house by wooden in preference to iron stays; for though electricity takes the shortest route, yet in case the rod were imperfect, the passage of the fluid into the building would be favored by iron bolts. [We have seen blocks of wood used for fastening the rods to the building; in some instances, thimbles or cylinders of glass, or horn, have been inserted in the blocks for the rods to pass through. It is argued that, as the glass and horn are non-conductors of electricity, the fluid is not liable to be led into the building at the points where the rods are attached, but by leaving the rod insolated, allows the electricity to pass downward without interruption.—EDS.]

6. The kitchen chimney, being that alone in which a fire is usually kept during the summer, requires to be especially protected.

7. Paint made of lamp-black is best suited to lightning rods, this substance being a better conductor than other kinds of paint.

In addition to the remarks of Prof. OLMSTEAD, it may be proper to call attention to some essential particulars. It should be remembered that the attractive power of the rod only extends through a certain space, which, according to Prof. O.'s calculations, is twice the length which the rod projects above the building. A sufficient number of rods must therefore be provided to protect the whole surface of the building.

Practical electricians state that during thunder storms, there are three different discharges of lightning; "from the earth to the clouds; from the clouds to the earth; and through the atmosphere from one cloud to another." The latter discharges are said to be more frequent than any others, and often take the earth in their course. They were formerly called "rebounding strokes of lightning."

"To meet these various discharges of lightning," says an anonymous writer in the *New England Farmer*, "we must have conductors armed at all parts; that is, they should present in all directions, an attracting influence, by which the electric fluid may be discharged gradually and silently, without an explosion. The explosion prevented, all harm is prevented. This attracting or receiving power, as it is more properly termed, depends on the points; hence the greater the number of points and sharp and rough corners, the greater the protecting power. Conductors should not only be armed with these numerous points, and should be pointed to the ground, but they should be placed on the most exposed parts of the building." If these rules are correct, and they certainly correspond with our observation, it follows that square rods, with jagged corners, presenting numerous points, will afford to a building much more protection than round rods.

NOTICES OF NEW PUBLICATIONS.

GRAHAM'S AMERICAN MONTHLY MAGAZINE; GEORGE GRAHAM, editor: published by G. R. GRAHAM & Co., Philadelphia.

We have received the May number of this beautiful literary work. The embellishments consist of a spirited and elegant picture illustrating a dance of Mandan women; a picture of the "Lover's Leap," on the Chattahoochee river, Georgia; and a "Colored Flower"—the latter exceedingly beautiful, and in a style different from anything we have before seen. The contents embrace several well-written articles by J. FENNIMORE COOPER, W. H. C. HOSMER, S. D. PHELPS, and others. The terms of this work are three dollars a year in advance.

TRANSACTIONS OF RENSSELEAER COUNTY AGRICULTURAL SOCIETY for the year 1846.

We are indebted to GEORGE VAIL, Esq., for a copy of the above pamphlet, which embraces 106 pages of interesting matter in reference to the operations of this Society for the past year, including the able addresses of GOULD & VAIL—the former delivered at the last show of the Society, and the latter at the last annual meeting in February. This Society is constantly gaining friends and influence, and few associations are doing more than this for the advancement of the public good.

THE AMERICAN JOURNAL OF INSANITY, edited by the officers of the New-York State Lunatic Asylum, Utica.

The present is the third volume of this valuable publication, which we hope is extensively read, as it is calculated to be very beneficial by giving information in regard to the proper modes of treating insanity. It is published quarterly at one dollar per annum.

A BOOK FOR EVERY FARMER: The American Veterinarian, or Diseases of Domestic Animals, showing the Causes, Symptoms, and Remedies, and Rules for Restoring and Preserving Health; with directions for Breeding and Training; by S. W. COLE, editor of the Agricultural Department of the *Boston Cultivator*, &c., Boston. JOHN P. JEWETT & Co.

This will be found a useful book. It has one advantage over any other of the kind which has appeared here, that is, it speaks of diseases under the names by which they are known in this country, and the remedies prescribed are generally within the reach of every farmer, and may frequently be had on his own farm. This is quite a convenience, to say nothing of the saving in a pecuniary view. We recommend the work, and second the suggestion that it should be in the possession not only of farmers, but of every one who keeps a "horse, cow, sheep, pig, dog, or a few fowls." A few copies have been left for sale at our office, at *fifty cents* each It is very neatly printed, and well bound.

THE ENGLISH SPELLING BOOK: designed to teach Orthography and Orthoepy, with a critical Analysis of the Language, and a Classification of its Elements on a new plan; with appropriate Lessons for the Instruction and Improvement of the Young: by the American Society for the Diffusion of Useful Knowledge. New-York. LEAVITT, TROW & Co.

This book appears to be the first of a series, which it is designed to publish, under the direction of the Executive Committee of the American Society for the Diffusion of Useful Knowledge. From a brief examination of it, we are inclined to think it is well calculated for its object. We think the analysis and classification of language will be found very useful.

PORK BUSINESS IN CINCINNATI.—Over 3000 hogs were cut and packed by a single pork house in Cincinnati, in three consecutive days, the past winter.

MONTHLY NOTICES—TO CORRESPONDENTS, &c.

Communications have been received during the last month, from Solon Ramsdell, One of your Subscribers, Wm. R. Prince, Wm. A. Wolcott, A Subscriber, Plowboy, Caius, Z. C. Robbins, J. W. H., A Young Farmer, S. W. Jewett, D. G. W., Agricola, H. Palmer, D. T., A Subscriber, David Thomas, I. A. H., Wm. Wallis, J. D. Jones, J. D., A Bee Keeper, Queens County, F. K. Phenix, Charles Steane, Spalding, T. C. Peters, H. D. R., W. H. Hayward, D. S. Howard.

Books, Pamphlets, &c. have been received as follows:—History of Wyoming, by Charles Minor, an elegantly bound copy, from some unknown friend.—— Transactions of Rensselaer Co. Ag. Society for 1846, from Geo. Vail, Esq.——A pint of Osage Orange seed, from Messrs. Ely & Campbell, Cincinnati.——Parts V and VI of Dombey & Son, illustrated edition of Lea & Blanchard, Philadelphia, from the publishers.—— Abstract from the Returns of the Agricultural Societies in Massachusetts, from Wm. Bacon, Esq.——Prize List of the Windsor Co. (Vt.) Ag. Society.

We tender our thanks to Mr. Colman, for three beautiful volumes which he has just sent us from London, entitled, I. The Cultivation of Flax; the Fattening of Cattle with native produce; Barn-feeding and Summer-grazing, by John Warnes, Esq. II. A Series of Letters on Agricultural Improvement, by John J. Mechi. III. Practical Farming and Grazing, with observations on the breeding and feeding of sheep and cattle, &c., by C. Hillyard, Esq.

☞ We have received from Wm. Stickney, Esq., of Boston, a ham from one of his Suffolk pigs, cured after the mode mentioned in our February number, page 59. It is our opinion, as well as that of some of our friends of *taste*, that the ham is a very fine one; but though we would institute no *invidious* comparison, we are of the opinion that the excellence is more owing to the *breed of pigs* than to the mode of curing.

Egyptian Corn.—We have received from Cyrus Ingalls, Esq., of New Hartford, Oneida county, N. Y., a sample of this kind of grain. A variety quite similar to this has been cultivated in this county, chiefly as a curiosity, for several years. It is of the same family as broom corn, producing its seed in a similar manner. We are not aware that it has any particular qualities which would render its cultivation profitable.

Osage Orange.—We are pleased to learn that Mr. Thorburn of this city has received a quantity of the seed of the Osage Orange. It comes direct from its native country, the banks of Red River in Texas. It is highly recommended as a hedge plant, and for this purpose is considerably cultivated in some of the southwestern States. We have seen some fine hedges of it in the neighborhood of Cincinnati and other parts of southern Ohio. How it may stand the winters of this latitude we are unable to say, but deem it well worth a trial, being confident that it will answer admirably if it should prove sufficiently hardy. From a communication in reference to the cultivation of this plant, published in the *Cincinnati Gazette*, we extract the following:—

"The best way to start a hedge of this plant, is to procure some of the seeds, of which about 7,000 are comprised in a quart. Scald them in water near the boiling point, and plant them in nursery beds, in good soil, and keep down the weeds the first year. In transplanting, the plants should be set about 12 inches apart. These facts will enable any person to form a correct judgment of the number necessary to plant in any given length of hedge. The seed should be sown early in the spring, and if not preferred to sow as above in a nursery bed, to be afterwards transplanted, it may be sown where the fence is wanted, by preparing the ground, and using a garden line to get the fence straight, covering the seed lightly with fine earth. When the plants are up, they must be kept clean and well hoed; and in the fall they should be headed down to within two or three inches of the ground."

The price of the seed is $3.50 per quart. A quart is said to contain from 7,000 to 8,000 seeds. It is for sale by Mr. Thorburn, corner of Broadway and Maiden Lane.

Address at the State Fair.—It will be seen by reference to the doings of the Executive Committee, published in this number, that the Hon. Silas Wright has consented to deliver the address at Saratoga, on the occasion of the Fair.

New Horticultural Work.—It will be seen by a notice in this paper, that the Massachusetts Horticultural Society is about to commence the publication of its Transactions. The work will be issued in Parts, as the materials accumulate; and each Part will contain from four to six Plates, chiefly of Fruits, but occasionally of Flowers, drawn and colored from nature, by the best talent the country can produce. It will contain accurate descriptions of the Fruits and Flowers, of which plates are given, original papers from the regular and corresponding members of the Society, its proceedings, &c., &c. From the talent, good taste and energy embodied in this Society, we confidently anticipate a work of great practical value, in a most tasteful dress.

Rensselaer Institute.—By reference to an advertisement in this number, it will be seen that the summer term will commence on the 5th of the present month. We believe this to be one of the most useful institutions in the country, and cordially recommend it to those who wish their sons to pursue a course of studies which is particularly calculated to the adaptation of the sciences to agriculture and the arts. A more detailed notice of the system of instruction pursued here, will appear next month. In the meantime parents wishing to place their sons in an institution like this, can address Prof. B. F. Greene, Renselaer Institute, Troy, N. Y., who will furnish them with all the information necessary to enable them to judge correctly as to the merits of the institution.

Fine Fowls.—We have received from Mr. Adrian Cornell, of Newtown, Bucks county, Pa., a cock and two hens of the "Bucks county breed," so called, and a cock and two hens of a stock imported from China. The latter are beautiful birds—of large size, with small, neat heads, clean, flat legs, and almost perfect symmetry of body, with a fine glossy black plumage. They are chickens of last season, and though in only middling condition, the cock weighed on the scales here, eight and a quarter pounds. The hens were not weighed. We think we have never seen any other fowls of so large a size, which were in all respects so fine in appearance as these. We do not mean to say that *all* Chinese hens are of this character, for Mr. Cornell observes—"I have seen some China fowls which were quite different from those I send you, being coarse-boned, with long legs, long neck, large head, with a short and disproportionately small body; but such as I send you, I consider the best for beauty and the table of any kind I have ever been able to obtain."

The "Bucks county fowls" are large—the cock,

about nine months old, weighed eight and a half pounds. They are of a dull yellowish color, and their leading characteristics indicate that they belong to the tribe of Malays. We have no doubt, however, that they are of the *true* kind which has obtained such celebrity as the "Bucks county breed." Mr. C. says of them—"they have been in my possession, and in possession of my father before me, for the last forty years, and have been bred with great care as regards their qualities for the market and table. There have been fowls sold over the country for Bucks county fowls, which were a mongrel breed, a cross of the African and common, and of different kinds bred together. Such fowls cannot be relied on. Those I send you have been kept pure, having been bred on this farm for the long period I have mentioned."

☞We would call attention to the advertisement of MORSE's horse, in this number. A cut and description of him was given in our May number of last year, and some notice of his stock appeared in the November number. Five of the progeny of this horse were shown in this city not long since, and attracted much attention on account of their fine forms and good action. We are informed that a young stallion of this stock has lately been purchased by Messrs. NOTTINGHAM & Co., near Palmyra, N. Y., for $800.

GREEN CROPS AS MANURE.—The Report on Manures, made to the New Castle County Agricultural Society, Del., states that William Polk, of Cantwell's Bridge, increased his corn crop ten bushels per acre, by turning in the second crop clover, over other parts of the field which was mowed for the purpose of obtaining seed.

VALUE OF MANURE.—The same Report also states, that "the late George Simmons, five miles from Wilmington, improved one of his fields by drawing manure from the city, which cost him, delivered, three dollars per cart load, and spread it at the rate of twenty loads to the acre, making sixty dollars for the manure, which was more per acre than his farm would have sold for, yet the increase in the crops justified the expense." A young farmer 6 miles from Philadelphia, informed the writer that manure from the city, costing three dollars per load and one dollar for drawing, or four in all, was a very profitable application; and that he yearly expended six hundred dollars in this way.

IMPROVEMENT IN LUMBER WAGONS.—In the second number, current volume, of the Cultivator, a brief account is given of an improvement in lumber wagons, which has been adopted to some extent in England. That account was merely intended to exhibit the *principle* of the improvement, without at all entering into the details of construction.

Since its appearance, several correspondents have inquired the mode of support for the forward end of the box; and some have summarily censured the mode of construction, in the absence of the required information. The Ohio Cultivator, which copied the article, also states that several similar inquiries have been made.*

The rough figure which was given of this improvement, was incorrect, and has in part, led to an erroneous impression. The joint in the reach, was represented as too far behind the forward axle. The distance should not be more than twelve or fifteen inches, which is sufficient to allow all the necessary advantage to this mode. A heavy metalic plate, in the form of the arc of a circle, and a few inches wide, is fixed to the middle of the axle, so that the centre of the arc is the turning point in the reach. A similar and corresponding plate is fixed in connexion with the box above. All the friction which occurs, is between the polished faces of these two metalic plates. An iron pin passes through the bottom of the box and the turning point of the reach, and preserves the box in its place, the bottom and sides of the box being fastened together. It will be observed that by this mode, the surface exposed to friction, is but little greater than in the usual plates on the axle and bolster in the common way; and that in ordinary forward motion, the movement from one side to the other is exceedingly small.

A Vermont correspondent states that wagons were made in this way in his neighborhood, twenty years ago, and failed; and he asserts that the friction between box and axle would wear out the box in two weeks, and the axle in four. It would have been interesting to know by what mode the box was supported, in the cases he describes. By the mode already stated, wagons holding from *four* to *five tons*, have been used in England, without any difficulty.

It is not impossible that an advantage might result by substituting two strong metalic rollers in place of the upper plate, though hitherto it has not been found necessary.

The correspondent who objects, that as "in turning, the wheels move sideways, which would be impossible, unless the ground was perfectly smooth and hard," [to admit their *sliding*,] is informed that the wheels turn precisely as the wheels of any other wagon without altering their position on the ground, while the box itself moves in a contrary direction, by means of a pin through the turning-point. T.

RED CEDAR FOR HEDGES.—We have sometimes seen in gardens and ornamental grounds, very fine screens of red cedar, and it has occurred to us that this plant might be used to good advantage for forming hedges for sheep, especially in sections which are destitute of wood and timber. Some beautiful specimens of this kind of hedge or screen or may be seen in the garden of Mr. JAMES WILSON, near this city. The form is conical and perfectly regular, the sides even, and the branches so close it would be almost impossible for a rabbit or a partridge to pass through it. Nothing can be more agreeable to the eye, than well-set and regular line of fences of this description; and we have no doubt that they would form an effectual barrier against sheep, and perhaps against cattle also, when they shall have acquired sufficient age.

We learn from Mr. Wilson, that the proper mode of cultivating the red cedar is as follows:

The seed should be gathered in the fall, as late in the season as possible, and may be at once sown to the depth of an inch on a bed of light loam, in which has been mixed a dressing of peat. But few plants only will come up the first year, but the bed should be kept clean by skim-hoing with a scuffle or dutch hoe; and in the fall, the beds should be well cleaned off, saving what plants have come up, and apply a dress of sandy compost, a fourth of an inch thick. The plants will come well the second year.

When the plants are from one to two years old, transplant them in May, in rows one foot apart, and eight inches in the row. Let them stand in these rows one or two years, as may be convenient; but whenever planted out for hedges, it should not be done earlier in the season than May. They may be set twenty inches apart, in ground prepared as for corn. They should be kept clear of weeds and grass; and for the first two or three years, they should be topped so as to keep them of uniform height. In four or five years, they will grow to the height of five feet.

A sandy or gravely soil appears to suit the red cedar best, but it grows well in Mr. Wilson's soil, which is a tenacious clay. We presume it would flourish on the *dry* western prairies.

SAVING OF ANIMAL FOOD BY RAILROADS.—Every one knows that in driving fat animals, there is a consid-

* The "plan was *[not] copied* from an English work," as that paper states, but derived from a verbal source of the highest credit.

erable loss of weight. Mr. COLMAN, in his Fourth Report on the Agriculture of Massachusetts, states—the loss in driving fat cattle from Connecticut river to Brighton, (say 100 miles,) at from 50 to 100 pounds to each animal. We notice a statement in a late English periodical, in which the average loss for the same distance, is put down at 40 pounds each for fat cattle, 8 pounds for sheep, and 20 pounds for hogs. To give some idea of the aggregate loss which has thus been annually sustained, and the saving effected by transporting stock on railroads, it is computed that the number of animals annually transported by this mode of conveyance in England, is 220,000 cattle, 1,250,000 sheep, 550,000 swine. According to the above estimates, this would give a total of 27,050,000 pounds, 11,000 tons food saved by railroad transportation; which amount was formerly lost yearly, by driving the animals to market. The saving may ultimately be as great in this country, when our railroad communications become sufficiently extended. It is computed that there are at the present time, 4 500 miles of railroad in the United States, 700 miles of which are in the state of Massachusetts; 500 miles are short roads to coal mines, quarries, &c. But there are, as is estimated, 10,000 miles of railroad in the United States, projected, and not completed.

THE MARKETS.

The Cambria arrived at Boston on the evening of the 20th, with London dates to the 3d April. She brings news of a rise in Cotton equal to nearly half a cent per lb. on American varieties of all kinds. The large importation of Bread-stuffs into Great Britain and Ireland, have had the effect of lowering the prices of grain and flour. At the present date, (April 22d,) the effect of the news on our markets is not sufficiently ascertained to justify quotations

SEED DRILL AND CORN PLANTER.

IN the April number of the Cultivator was published a description and cut of the Albany Seed Planter. I would invite the attention to, and trial of the same by Farmers and Gardners, and particularly those who cultivate Root crops, as Carrots, Parsnips, Beets, Turnips, &c., masmuch as this insures a certain and *continual* dropping of the seed. It also has a stop motion, by which the operation ceases by a touch of the hand or foot. This Planter with the Cylinder is a desirable labor saving machine both for sowing and after culture, and with Cylinder for large seeds, should be in the possession of every farmer. For sale at the Ag. Warehouse and Seed Ssore of Luther Tucker. H. L. EMERY.

PLOWS! PLOWS!!

THE attention of Farmers and Dealers is particularly invited to our assortment of Farming Tools—among which may be found a complete assortment of the most approved as well as common plows, including all sizes of the Center Draft, Side-Hill, Subsoil, Self-Sharpening Plows, from Messrs. Prouty & Mears, of Boston. Also, the Eagle, Subsoil, Side-Hill, Self-Sharpening, and others, from Messrs. Ruggles, Nourse & Mason, of Worcester, Mass. Also, the Peekskill Plow, all sizes, from Minor & Horton, of Peekskill, N. Y., and Delano's Diamond Plow—all for sale at the manufacturers' home prices, and warranted. The adjustable Steel Point Self-Sharpening Plows, from the factory of Messrs. Ruggles, Nourse & Mason, is just received. This is a new improvement in the wearing parts of the plow, and has several advantages over the common plows in use. (See R. & N.'s advertisement.) Also on hand Cultivators, Harrows, Seed-Sowers, and Planters, Ox-Shovels or Scrapers, Field Rollers, &c., &c., &c., at the Albany Agricultural Warehouse and Seed Store, Nos. 10 and 12 Green-st., Albany, N. Y. L. TUCKER.

POUDDRETTE.

THE Lodi Manufacturing Company offer their Poudrette for sale the following season at *reduced* prices, viz: In barrels delivered free of cartage, at any wharf or place in the city of New-York, at the rate of $1.50 per barrel, for any quantity over 7 bbls.; (under 7 bbls., $1.75.) In *bulk*, at the factory, on the Hackensack river, where vessels drawing 8 feet of water can come, it will be delivered at the rate of 25 cents per bushel. Planting 4 feet apart, each way, 2 barrels or 8 bushels of Poudrette will effectually manure an acre of corn, and will vie in cheapness and efficiency with any manure now in use.

Apply by letter *post-paid*, to the "LODI MANUFACTURING CO.," New-York, or to James B. Cox, Agent, No. 90 West-st.

April 1—3t.

GUANO.

200 TONS Ichaboe Guano, balance ship Shakspeare's cargo, the best ever imported in the country, for sale in lots to suit purchasers, by E. K. COLLINS, 56 South-st.

April 1.—tf.

AGRICULTURAL SEEDS.

THE subscribers offer for sale their usual supply of *White Silesia French Sugar Beet* for Cattle, at 75 cents per pound.

Yellow Garman Beet for Cattle, a very superior sort, being quite as productive as the White, growing quite as large, and said to contain more nutritive properties—$1 per pound.

White Field Carrot, growing very large, and producing, under proper cultivation, from 8 to 12,000 bushels per acre—$1 per lb.

Guernsey Cup Parsnips.—Best kind, $1 per lb Long Orange and Altringham Carrots for Cattle, $1.25 per lb., very clean seed.

Spring Vetches for soiling and green fooder—$4 per bushel.

Lucerne Clover, the most productive clover cultivated, may be cut two or three times each season, producing each time as much or more than the common Red Clover—25 cents per lb., 16 lbs. to the acre—sow in May.

With a general assortment of fresh Garden, Field and Flower Seeds of the best qualities, and warranted genuine.

J. M. THORBURN & Co.,
15 John st., and 465 Broadway, New York.

☞ New General Catalogue of Garden, Field and Flower Seeds, new Roses, &c., &c., for 1847, just published, and may be had on application. May 1, 1847—1t.

STOCK FOR SALE.

MATCH and single Horses, some of which can trot their mile under three minutes, others rack and gallop easily, making admirable saddle-horses for ladies and gentlemen: Durham, Devon, Hereford, and Ayrshire Cattle; Merino, Saxon, South-Down, and Leicester Sheep: the large white English breed of Swine, Berkshires, Poultry, &c., &c. Apply to

A. B. ALLEN, 187 Water-Street, New-York.

March 1, 1847—tf.

NEW-YORK AGRICULTURAL WAREHOUSE.

FARMERS, Planters, and Gardeners, will find the LARGEST and MOST COMPLETE assortment of Agricultural Implements, Field and Garden seeds, of all kinds, ever offered in this market. Most of the implements are of new and highly improved patterns, warranted to be made of the best materials, put together in the strongest manner, of a superior finish, and offered at the lowest cash prices. A. B. ALLEN & Co., 187 Water-st., N. Y.

March 1—3t.

THE FARMER AND MECHANIC,

An Agricultural and Mechanical Journal. Also devoted to Manufactures, Science, the Arts, etc.

PUBLISHED weekly at 135 Nassau-st., Clinton Buildings, N. Y. W. H. STARR, Editor and Proprietor. The Farmer and Mechanic is designed to be a Family and Business Newspaper, devoted *particularly* to the objects above specified, and *generally* to the promotion of Temperance and Education, connected with purity of principle and sound morality.

It will contain the authentic reports of the New-York Farmer's Club, the Conversational Meetings of the American Institute, the Proceedings of the Mechanic's Institute, and other similar associations. It will also represent the interests of those engaged in the Silk Culture—for which department a gentleman of experience and qualification is engaged. Able correspondents are secured upon all other subjects, and no expense will be spared to make this periodical superior to any other similar Journal in the country.

TERMS.—This periodical is printed weekly, on good paper, embellished with numerous Engravings, containing forty-eight columns of closely printed matter, at $2 per annum in advance.

Advertisements of twelve lines or less, inserted once for 75 cents; three months, $3.50; six months, $6.00; one year, $12.00.

☞ Postmasters and others may retain 25 per cent. on all cash subscriptions they procure.

All communications must be addressed, post paid, to

W. H STARR,
May 1, 1847. 135 Nassau-st., New York

FINE PURE BRED SHEEP FOR SALE.

THE subscriber being about to give up the farming business, offers for sale his stock of Merino Sheep, consisting of 54 pure bred Merino ewes—all with lamb by the celebrated Rambouillet Buck "Grandee," owned by Rev. L. G. Bingham, of Williston, Vt. Also 50 lambs from the above-mentioned ewes, got by the Rambouillet buck "Chancellor," and the Paular "Mt. Defiance," now owned by Merrill Bingham, Esq., of Cornwall, Vt. It is believed by their owner that they are fully equal to any flock o sheep in the country for raising stock. The ewes, aside from raising a lamb each, sheared last June, upon an average, 4 lbs. 4 oz. of well washed wool—perfectly clear from gum. The wool was sent to Samuel Lawrence, Esq., of Lowell, and pronounced by him to be the right kind of wool for our farmers to raise—being the most profitable.

Satisfactory evidence of the blood can be given. Apply to the subscriber at Williston, Vt., or A. B. Allen, 187 Water-st N. Y.

Good endorsed notes on six months time will answer as well as cash down.

THOS. H. CANFIELD.

May 1—1t.

HORSE RAKES.

WILCOX'S Revolving Horse Rakes, which has taken the premiums at most of the New England Fairs, for sale at the Albany Ag. Warehouse and Seed Store—price $7 and $8.

May 1, 1847. L. TUCKER.

RENSSELAER INSTITUTE.

THE Summer Session for 1847 of the Rensselaer Institute, will be opened on Wednesday the 5th of May proximo. For information in regard to the course of study, terms of instruction, and other particulars, inquiries may be addressed to the Director of the Institute, Prof. B. FRANKLIN GREENE, Troy, N. Y., by whom pamphlets will be furnished containing a detailed view of the course of study and all other necessary information.

Rensselaer Institute, Troy, N. Y., April 15, 1847—2t.

AGENCY FOR PATENTS,

Washington, D. C.

ZENAS C. ROBBINS, Mechanical Engineer, and Agent for procuring Patents, will prepare the necessary drawings and papers for applicants for Patents, and transact all other business in the line of his profession at the Patent Office. He can be consulted on all questions relating to the Patent laws, and decisions in the United States or Europe. Persons at a distance, desirous of having examinations made at the Patent Office, prior to making application for a patent, may forward, (post-paid, enclosing a fee of five dollars,) a clear statement of their case, when immediate attention will be given to it, and all the information that could be obtained by a visit of the applicant in person, promptly communicated.

All letters on business *must be* post paid, and contain a suitable fee, where a written opinion is required.

Office on F. street, opposite the Patent Office.

He has the honor of referring, by permission, to

Hon. Edmund Burke, Commissioner of Patents;
Hon. H. L. Ellsworth, late " "
H. Knowles, Machinest, Patent Office;
Judge Cranch, Washington, D. C.;
Hon. R. Choate, Massachusetts, U. S. Senate;
Hon. W. Allen, Ohio;
Hon. J. B. Bowlin, M. C., Missouri;
Hon. Willis Hall, New-York;
Hon. Robert Smith, M. C., Illinois;
Hon. S. Breese U. S. Senate;
Hon. J. H. Relfe, M. C., Missouri;
Capt. H. M. Shreeve, Missouri.

May 1, 1847—3t.

TRANSACTIONS OF THE MASSACHUSETTS HORTICULTURAL SOCIETY.

HORTICULTURAL HALL, School-Street,
Boston, March 25, 1847.

THE Massachusetts Horticultural Society announce to the public, that its Committee of Publication is preparing to publish the first number of a series of Transactions of the Society.

This publication has been for some years in contemplation, and materials have been collected for this purpse; but it has been hitherto delayed until the funds of the Society should enable it to be produced in a style of excellence which could not fail to render it both permanent, and an honor to the advanced state of the Horticulture of the present day.

It is intended that the work shall be in *royal octavo*, and the numbers shall appear as frequently as materials accumulate; each shall contain from FOUR TO SIX PLATES, chiefly of FRUITS, but occasionally of Flowers, drawn and colored from nature, by the best talent the country can produce, and also the proceedings of the Society, including the reports of the weekly and annual exhibitions, to the date of publication.

The Society hopes soon to offer such premiums for able communications on Horticultural subjects, as shall secure to these Transactions papers containing information of great practical value to all interested in this pursuit.

Although the authors of papers will alone be generally responsible for their contents, yet all accounts and descriptions of Fruits will be published under the immediate supervision of the Fruit Committee, and of Flowers under that of the Flower Committee: so that the *authenticity of the Society* will be attached to the most essential portions of their Transactions.

To establish a standard for all the present varieties of fruit, and to enable the public to judge of the quality of new kinds, as they shal. be presented from imported trees, or from varieties originating in this country, will be one of the principle purposes of these Transactions, and will receive the particular attention, not only of the Committees of the Society, but also of the most experienced of its individual members.

The price, to the members of the Society, will be about the cost of plates, printing, &c., and will not exceed seventy-five cents per number; to others, the charge will be one dollar.

All communications intended for publication, may be addressed to J. E. TESCHEMACHER, Esq., Corresponding Secretary of the Society, Boston.

Orders and subscriptions for these Transactions, may be addressed to W. D. TICKNOR & Co., publishers, corner of Washington and School-streets, Boston.

Committee of publication, J. E. TESCHEMACHER,
C. K. DILLAWAY,
EBEN'R WIGHT,
SAMUEL WALKER,
JOSEPH BRECK,
AARON D. WILLIAMS, Jr.
E. C. R. WALKER.

May 1—1t.

BOX FOR EDGINGS.

ONE Thousand yards Box Edgings, for sale at a low rate. Apply at the Agricultural Warehouse, No 10 Green-st, Albany.

March 1—2t. LUTHER TUCKER.

A VALUABLE FARM FOR SALE.

THE subscriber offers for sale a valuable farm, situated one mile east of the beautiful village of Skaneateles, in the county of Onondaga, on the old Seneca turnpike road, leading from Auburn to Onondaga Hollow, containing 157 acres of land. There is on said farm a good dwelling-house, two large barns, sheds, and other convenient out-buildings. It is well watered, soil of the first quality, pleasantly located, and is one of the most desirable situations in western New-York. Enquire of the subscriber on the premises. CHESTER MOSES.

Skaneateles, May 1. 1847—1t*

VERMONT AGAINST THE WORLD.

WE, the undersigned, owners of the horse "Black Hawk," do hereby offer to exhibit said Stallion at Saratoga Springs, during the show of the New-York State Agricultural Society in September next, against any entire horse that may be produced on the following conditions:—Five Judges shall be selected, two by the accepting party and two by us, and these four shall have the power to select the fifth. We will place $500 in the hands of the Treasurer of the New-York State Agricultural Society, on or before the first day of September next; and whoever accepts this offer and enters into the competition, shall do the same, and also give notice of their acceptance through the "Cultivator," and any other periodical they see fit, in the month of June next. The Judges shall give the award of $1,000 to the horse Black Hawk, unless another animal entered shall, in the opinion of said Judges, or a majority of them, excel him in comparative merits on all of the four following points, viz: 1st. Perfectness of symmetry; 2d. Ease and elegance of action; 3d. The best and most perfect broke in harness; 4th. The fastest trotting in harness. The place, time and the length of the trotting course to be determined by us, near the show ground during the fair—the distance to be not less than three nor over ten miles, as Black Hawk will not at that time be fitted and in proper condition for trotting. In case we are beaten, we reserve the right to put him in train and make a second match, to which each party shall add $100 more to the premium fund. The second match to come off within six weeks at the same place. Should there be more than one horse entered to compete with Black Hawk, the winning party shall be entitled to the whole fund.

D. E. & N. H. HILL.

Bridport, Vt., April 6—1t.

A BOOK FOR EVERY FARMER.

JOHN P. JEWETT & Co., 23 Cornhill, Boston.

HAVE just published one of the most valuable works for farmers ever issued from the American press, entitled

THE AMERICAN VETERINARIAN, or DISEASES OF DOMESTIC ANIMALS,

showing the causes, symptoms, and remedies, and rules for restoring and preserving health by good management, with directions for training and breeding. By S. W. Cole, editor Agricultural department Boston Cultivator.

Mr. Cole has spent several years in compiling and testing the facts he now offers to the farmers of this country. He has produced a work of great value to every man who keeps but a single horse or cow, but to the practical farmer its value can hardly be over estimated. The whole subject of the *Treatment of Domestic Animals*, is treated in the most thorough manner, comprising the Horse, Ox, Cow, Sheep, Hogs, Dogs, Hens, Turkeys, Geese, Ducks, Birds, Bees, &c., &c. The whole is compressed into one volume of 288 closely printed pages, with 7 beautiful wood engravings, firmly bound in leather. To be sold at the low price of 50 cts., in order to bring it within the means of every man. No pains or expense have been spared on the part of the author or the publishers, to produce a work worthy a place in every Farmer's library.

For sale at the office of "THE CULTIVATOR," and at the principal Book and Agricultural Stores in the country.

JOHN P. JEWETT & Co.

ALBANY SEED STORE.

FRESH GARDEN SEEDS,

THE growth of 1846. The subscriber begs to inform his friends and customers that he is now daily receiving his fresh Garden and Flower Seeds, and has now in store a general assortment, from the most reliable sources, both foreign and domestic. Among the more important, and for the first sowings in hot beds, he would name—Early York, Sugarloaf, and Battersea cabbage; Early Ox Hart, a French variety of unequalled quality, for both heading and delicacy of flavor; it comes in use immediately after the York, and is of equal delicacy; fine Early Cauliflower; Cape Broccoli; Early Prince Albert Peas; Cedo Nulli: Blue Imperial, and other renowned Garden Peas; Early Scarlet Short Top Radish; best Early Lettuces; Purple Egg Plant; Apple or Rareripe Tomato, &c.

From his long experience in the business of a Seedsman, and unequalled correspondence, both at home and abroad, he hopes to merit an increased continuance of patronage. His assortment of Field Turneps, Carrots, and beets, is not to be surpassed. And in the Flower Garden department, every variety to be found in London and Paris is regularly sent out:—the finest German Asters and and Balsams, with too numerous a list of new Annuals to put in an advertisement. Gladiolus Floribunda Roots, Tiger Flowers, Double Dahlias, and many other desirable spring bulbs. Canary birds, of the finest song. Fancy Cages in great variety; fresh Canary, and other bird seeds; Glass Fountains, &c., &c. ☞ Traders supplied. WM. THORBURN,

April 1—2t. Corner Broadway and Maiden Lane.

☞ Also a large and fine assortment of Fruit Trees and Roses Catalogues gratis.

JOSEPH BRECK & Co.,
NEW-ENGLAND AGRICULTURAL WAREHOUSE AND SEED STORE.
Nos. 51 and 52 North Market-Street, Boston.

OFFER for sale one of the most extensive collections of VEGETABLE, AGRICULTURAL, and FLOWER SEEDS, to be found in the country, comprising a large assortment that are new and rare.

Also, every description of HORTICULTURAL and AGRICULTURAL IMPLEMENTS, and TOOLS, together with a general assortment of Agricultural and Horticultural Books.

Superb varieties of FLOWER SEEDS.—We have now a full supply of fresh flower seeds from the most celebrated Florists in Europe, from our own garden in Brighton, and from other sources, of the most select varieties ever offered in this country. Special attention has been given by the subscribers in long practice, in improving the numerous varieties of hardy flowers, which have so long been the object of their cultivation, and they feel assured that the seeds saved by themselves cannot be surpassed by any other growers in the country.

GARDEN SEEDS.

Early Peas—Cedeo Nulli, Early Warwick, Early Smiths, Early Hill, Early Frame, Bishop's Dwarf, Blue Imperial, Knight's Marrow, Marrowfats, of different sorts, 25 cents per quart. Prince Albert, 37½ cents per quart; Royal Green Marrow, very superior, and Queen of the Dwarfs, a very superior Marrowfat, not exceeding 1½ foot in height, new and very excellent, each 50 cts. per qt.

Cauliflower—Large Asiatic, and other early and late varieties.

Broccoli—Chappel's Cream, New Hardy Cape, Purple Cape, Cheltenham, Brimstone, Early White, Purple &c.

Cabbages—Warner's Incomparable, (very early) Queen, do.; Wellington, Imperial, Early Hope, Early York, and other fine sorts.

Couve Tronchucea, or Portugal Cabbage—a delicate vegetable of the Cabbage family, considered by some equal to the Cauliflower; 12½ cents per package.

German Greens—A handsome growing plant, and very desirable for "greens;" 12 cts. per package; Weeden's fine Long Frame Prize, one of the longest varieties—25 cts.; White Spine, 12½ cents; Early Synotts' Early Frame, &c.

Celery.—Bailey's Red Solid, Bailey's White do.; Seymour's White Solid, and other varieties.

Egg Plant.—Purple and White.

Endive—New Transparent Yellow, 12½ cts. Tomatoes.

Thyme, Sage, Sweet Majoram.

Melons—Nettled Cantaloupe, Black Rock, Minorca, Skillman's Fine Rock, Persian, Nutmeg. Green Citron, &c.

Also every other variety of Garden Vegetable Seed.

AGRICULTURAL SEEDS.

A general assortment of Carrot, Ruta Baga, Beets, Mangel Wurtzel, Turnep, Parsnep and other seeds for the field. Also

GRASS SEEDS.

Northern and Southern Clover, White Dutch do.; Lucerne, Herds Grass, Northern and Southern Red Top; Oat Grass, Orchard Grass, Perennial Rye Grass—wholesale and retail.

Potato Seeds, at 50c cents per package—sufficient for 2000 plants.

Fruit Trees, and Ornamental Shrubs and Plants, of every description—furnished at the lowest rates, and of the choicest varieties, at short notice. April 1, 1847—1t.

THE GENUINE MORGAN HORSE GENERAL GIFFORD.

THE horse purchased by the subscribers at the late State Fair, at Auburn, where he was exhibited, together with his sire, the Gifford Morgan," and attracted universal admiration, [see report of Committee on Foreign Stock, in Cultivator, vol. 3, page 342,] will stand the ensuing season for mares, on Mondays, Tuesdays, and Wednesdays, at the stable of Geo. A. Mason, two miles northeast of Jordan. Thurdays Fridays, and Saturdays, at Camillus.

TERMS—$10 the season. Insurance to be agreed upon. Pasturage for mares furnished by either of the subscribers at a reasonable price. GEO. A. MASON,
March 15, 1847—2t. D. A. MUNRO.

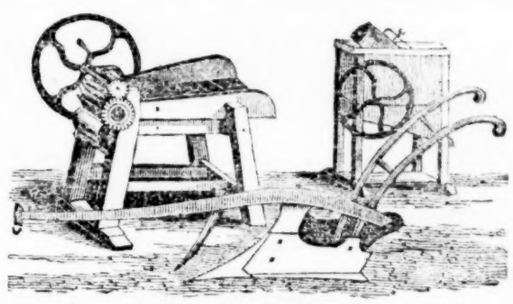
SENECA LAKE.

A BEAUTIFUL FARM for sale, lying on the east side of the Seneca Lake, Seneca Co., N. Y., about 7 miles south of Geneva, containing about 159 acres of the best quality of land. There is about 50 acres of excellent wood and timber land, and the arable and meadow land is of the best quality and in good condition. Lowest price $50 per acre. The one-half of the purchase money may remain on bond and mortgage for many years. Title good. The farm may be viewed at any time. Apply to RICHARD DEY, on the premises, or to JAMES R. DEY, No. 51 Liberty-st., New-York, or to JACOB C. DEY, Fulton-st., Brooklyn.
Fayette, March 1, 1847—3t.

THE OLD MORGAN GIFFORD HORSE,

SO well known in Vermont and New Hampshire as the highest blooded Morgan stallion now remaining, will be found the coming season at the subscriber's stable, in Walpole, N. H.

Terms—$15, of which $5 is to be paid at the time of service, and the remaining 10 if the mare proves in foal. Pasturing will be provided for mares from a distance, and the necessary attention given them. Accidents and escapes at the risk of the owners. A cut of this horse may be seen in the Sept. No., 1846, of the Cultivator. FREDERICK A. WIER.
Walpole, N. H., March 9, 1847.—3t.*



JOHN MAYHER & CO.
U. STATES AGRICULTURAL WAREHOUSE,
No. 195 Front-street, (near Fulton,) New-York.
Foundry and Machine Shop 502 and 504 Water-st.

THE subscribers respectfully invite the attention of Merchants and Dealers in AGRICULTURAL IMPLEMENTS to the superior assortment of goods which they manufacture, embracing Plows and Castings of the most approved kinds in use, and possessing all the latest improvements in style, workmanship, and material, among which are the following articles, that can be seen at their warehouse:

Pitts' Corn and Cob Crusher. Price, $40
Sinclair's do.—hand or horse, $30
Fitzgerald's Patent Burr Stone Corn Mill, $60
Sinclair's Cast Plate Corn Mill, $40
Swift's Corn, Coffee, and Drug Mill, $6 to $8
Hovey's far-famed Hay, Straw, and Stalk Cutter;
Sinclair's Hay, Straw, and Stalk Cutter;
Greene's do. do. do.
Mayher & Co.'s do. do.
Langdon's do. do. do.
I. T. Grant & Co.'s Premium Fanning Mill;
J. Mayher & Co.'s do. do.
Boston Centre Draught Premium Plows,
Bergen's Self-Sharpening Plows;
Dutcher's Plows of all kinds;
Hitchcock's do. do.
Freeborn's do. do.
Minor & Horton's Plows, all k'ds;
Worcester Eagle do.
Mayher & Co.'s Eagle improved Plows;
Mayher & Co.'s much approved Plows;
Langdon's Horse Hoe Plows;
Castings to fit all kinds of Plows in use;
Mayher & Co.'s 2 Horse Power, Price, $55
do. do. 4 do. $75
do. do. 2 Thresher, $25
do. do. 4 do. $30
John Mayher & Co.'s First Premium Corn Sheller;
Burrall's Corn Sheller;
Warren's do. do.
Sinclair's Corn Sheller and Husker;
Pitt's Horse Power and Threshing Machine;
E. Whitman's Jr., Thresher and Separator;
Subsoil Plows of different kinds.

Cultivators, Wheelbarrows, Canal Barrows, Store Trucks, Horse and Ox Carts, Mule Wagons, Ox-Yokes and Bows, Hames, Trace and Ox Chains, Road Scrapers, Ground Augurs, Shovels, Spades, Pick Axes, Hay and Manure Forks, Rakes, Hoes, Scythes, Scythe Snathes, Grain Cradles, Crow Bars, &c., &c., all of which will be sold as cheap as they can be bought at any other store in the city, and are warranted.

Gin Gear, Segments, Rag Wheels, &c.
Castings of all kinds made to order. March 1, 1847—tf.

TO NEW-YORK FARMERS AND EMIGRANTS.

ONE hundred and fifteen thousand acres Illinois Lands for sale, in tracts of 40, 80, 120, 160 acres, or more, to suit purchasers. The lands are all first rate, and among the very best in the state, and are situated in the counties most densely settled, viz., Morgan, Scott, Cass, Mason, Menard, Green, Sangamon, Logan, Christian, Mason, McLean, Woodford, and Macoupin. To actual settlers every reasonable indulgence will be given as to time of payment. The price from $3 to $5 per acre.

A correspondent of one of the New-York papers, writes respecting this section of Illinois as follows:

"*Beardstown, Cass Co., Ill., Jan.* 10, 1846.

THE RICHES OF THE WEST.—GOTHAMITES ON THE WING.—It is now six weeks since I left the city of Gotham, during which time I have seen considerable of this western country, and I must say the beautiful prairies of Illinois, far exceed what I had anticipated, and this country may truly be called the garden of the world. There is nothing to prevent farmers in this country from getting rich, as the land is the most fertile in the world, and it will produce everything grown in the vegetable kingdom.

"A New England man would hardly believe me if I tell him that some farmers here produce ten thousand bushels of corn, and half as many bushels of wheat in a year, to say nothing of cattle and hogs, of which some raise as many as five hundred head. One farmer told me that he raised the last year 6000 bushels of corn, and it was all produced by the labor of two men only.

"Cattle and sheep feed upon the prairies all winter, as they are seldom covered with snow."

Most of the above lands may be cultivated 100 years or more without manuring, being of the richest alluvial soil. The titles are indisputable, and the lands will be sold at low prices and in quantities to suit purchasers. Letters (post paid) addressed to D. B. AYERS, Esq., of Jacksonville, Ill., or the subscriber, will receive prompt attention. As many persons out of the state have an idea that the taxes are very burdensome in Illinois, we state that they range from $1.50 to $2.00 per annum, on 80 acres of land.

JOHN GRIGG,
Jan. 1, 1847.—6t No. 9 North Fourth-st., Philadelphia

CONTENTS OF THIS NUMBER.

COMMUNICATIONS.

Italian Agriculture, by CAIUS, ... 139
Weeds injurious to Agriculture, by S. B. BUCKLEY, New York, 141
Observations on Sheep, by EBENEZER BRIDGE, ... 145
On the use of Charcoal, by R. L. PELL and S. RAMSDELL, ... 146
Management of Pear trees, by G. BUTLER—Insect on Gooseberry and Currant bushes, by A SUBSCRIBER—Preserving Scions, by T. G. YEOMANS, ... 147
Raised Foot paths, by D. T.—Peculiar growth of varieties, by D. THOMAS—Planting Orchards, by W. R. PRINCE, ... 148
Premium List of N. Y. State Ag. Society, ... 149
Proceedings of Executive Committee of do, ... 151
Howard's Rotary Cylindrical Grain Dryer, by Z. C. ROBBINS, 152
Morgan Horse "Black Hawk," by S. W. JEWETT, ... 153
Gin for loading logs and stone, by S. E. TODD—Insect on Clover seed, by H. BREWER—American Agricultural Books, by W., ... 154
To improve an Agricultural paper, by W. BACON, ... 155
Detailed Experience in Farming, by WM. CANFIELD—Agricultural capabilities of Georgia, by PAUL DAVIDSON, ... 156
Analysis of Vegetables, by H.—Training Heifers, by A. W. St. JOHN—Origin of the Morgan Horse, by JUSTIN MORGAN, ... 157
Summer Fallowing for Wheat, by R. HATTON—Recipe for Sweeny, by JOHN MILES—Western Virginia, by J. C. McGREW—Potato Starch, by MAINE—Farmer's Clubs, &c., by M. GOLDSBOROUGH, ... 158
Steaming Apparatus, by T. C. PETERS and W. H. DENNING—Cure for Horse Cholera—Rural Architecture, by RURALIST—Wool Growing in Virginia, by O. P. Q, ... 159
Guano—Effect of Example—Killing Rats—An important Trifle, ... 160

EDITORIAL.

On Making and Preserving Butter, ... 137
Farmer's Barometer—Waste Manure in cities, ... 138
Review of Colman's European Agriculture, part VIII, ... 140
Good Farming—Rotation of Crops, ... 144
On the Management of Pear trees, ... 147
Transplanting trees—Black Knots on Plums—Washes for Fruit Trees, ... 148
County Ag. Societies—Root Crops, ... 151
Preparation of Wool for the English Markets, ... 160
Answers to Inquiries—Lightning Rods, ... 161
Notices of New Publications, ... 162
Monthly Notices—To Correspondents, &c., ... 163

ILLUSTRATIONS.

Fig. 31—Short horned Bull, ... 140
Fig. 32—Hereford Cow, ... 141
Fig. 33—Devon Cow, ... 142
Fig. 34—Ayrshire Cow, ... 142
Figs. 35, 36—Cylindrical Grain Drier, ... 152
Fig. 37—Morgan Horse, ... 153
Fig. 38—Gin for loading logs, ... 154

TO WOOL GROWERS.

NUMEROUS liberal minded persons interested in the Wool business, having placed funds at our disposal for the purpose herein after mentioned, we shall, on the 1st day of October next, award and pay the following premiums, viz: Ten Golds Medals worth ten dollars each for the ten entire clips of most valuable fleeces for clothing purposes—ten Gold Medals worth ten dollars each for the ten entire clips of the most valuable fleeces for combing or worsted purposes—ten premiums of ten dollars each for the ten best conditioned entire clips of Saxony Wool—ten premiums of same amount for the ten best conditioned entire clips of Saxony grade Wool—ten premiums of same amount for the ten best conditioned entire clips of Merino Wool—ten premiums same amount for the ten best conditioned entire clips of Merino grade Wool—ten premiums of same amount for the ten best conditioned entire clips for combing fleeces. All Wool Growers throughout the United States are invited to compete for them. We would again invite the attention of Wool Growers to our remarks on the subject of preparing wool for market as published in the reports of the Wool Grower's meeting at Steubenville, Ohio, the 10th of February, 1847, also in the Ohio Cultivator, and other papers of the country.

All bales of wool designed for our care, should have the name of the owner or grower plainly written or printed on them in full, together with our address, as follows: "Perkins & Brown, Springfield, Mass."

All lots of wool intended to compete for the premiums, should reach us by the 1st of August next. Growers may receive premiums if their wool be put up and marked separately, even though the wool come through the merchant or other wool dealer. Any further contributions from Wool Growers or other public spirited persons will be expended in preparing the medals, publishing a report, and in additional premiums.

All Editors of Periodicals friendly to agricultural pursuits throughout the United States, are respectfully requested to publish.

PERKINS & BROWN.

Springfield, Mass., April 20, 1847—1t.

THE ENTIRE HORSE,

MORSE'S GREY, or "NORMAN," will stand for the present season at the stable of JAMES RICE, at Germondville, three miles north of Lansingburgh. CALVIN MORSE.

Lansingburgh, May 1, 1847—2t.

THE ROSE CULTURIST.

A VALUABLE Practical Treatise on the cultivation and management of the Rose in all its varieties, including Hybridizing, Budding, Grafting, Root Grafting, Forcing, and producing Seedling Roses, with an enumeration and description of more than 200 varieties of this beautiful flower. Embellished with numerous engravings.—Muslin Gilt. 31 cents; Mail edition 25 cents.

Published and for sale at the office of the Farmer and Mechanic, 135 Nassau street.

May 1, 1847—2t.

CORN MILLS.

THE subscribers have just received at their Agricultural Warehouse, a newly invented cast-iron mill, for grinding corn and other grain, either by hand or horse-power. It will grind from 3 to 4 bushels per hour. Price, $30.

Also the hand Corn Mill, which grinds from 1 to 1½ bushels per hour. Price $6.50.

These mills are highly economical and convenient, and every farm and plantation ought to have them. They are simple in construction, not liable to get out of repair, and are easily operated. When one set of plates is worn out, they can be replaced at a trifling cost.

A. B. ALLEN & Co.,
May 1—3t. 187 Water-st., New-York.

AG. WAREHOUSE AND SEED STORE,

Nos. 10 and 12 Green-st., Albany.

FOR sale, at all times, at the above establishment, all kinds of Agricultural and Horticultural Tools, Implements, and Machines, from the best manufacturers, and at as low prices as at any establishment in the country.

Plows of all kinds and sizes;
Harrows and Cultivators, of different kinds;
Manure Forks, Shovels, Spades, Hoes;
Horse Powers and Threshing Machines;
Corn Shellers, Straw Cutters, Corn and Cob Mills;
Drill Barrows and Corn Planters;
Fitzgerald's Portable Burr Stone Mills;
Harvesting and Haying Tools of all kinks;
Ox Yokes and Bows, Draft, Tie-up, and other chains;
Grant's and other Fanning Mills.

Garden Rollers, Ladies' Weeding Trowels, Grass Shears, French pattern, Border Shears, Garden Reels and Lines, Budding and Pruning Knives, Garden Rakes, Hay Knives, Transplanting Trowels, Pruning Saws, various kinds, Bark Mills, Sugar Mills, Bush and Bill Hooks, Root or Vegetable Cutters, Bull Rings, Axes and Hatchets, Patent Axe Handles, Wheelbarrows, Anti-Friction Rollers, Ship Scrapers, Spinning Wheels, Reels, Smith's Corn Sheller, Burrall's Corn Sheller, &c.

Churns, Cheese Presses, Tubs, and Pails, &c., &c.

Together with a general assortment of Field, Garden, and Flower Seeds, Seed Corn, Choice Potatoes, &c., &c.

April 1. LUTHER TUCKER.

CHEAP PLOWS.

SINGLE-Horse Plows, from $2.00 to $3.00 each;
Double-Horse " " $3.00 to $6.00 "

The woods of these plows are made of the best of *white oak*. The handles are *steamed* and then *bent crooked*, instead of being sawed out. This makes them much stronger and more durable. The castings are made from good *new pig iron*, without any admixture of *old scrap*. The wrought iron work is of excellent quality, with *extras* attached to the plows. A liberal discount to dealers.

A. B. ALLEN & Co., 187 Water-street, N. Y.

March 1—3t.

FIELD AND GARDEN SEEDS.

A LARGE and complete assortment of Field and Garden Seeds of all kinds, constantly on hand, for sale by

A. B. ALLEN & Co., 187 Water-Street, New-York.

March 1—3t.

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